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THE ECONOMIC JOURNAL

MARCH, 1933

BUILDING SOCIETIES—SOME ECONOMIC ASPECTS

I

Introductory

THE building society movement in Great Britain awoke, like Byron, to find itself famous. A sudden leap to fame, whether of a poet or an institution, may have certain disadvantages. The celebrity may be unprepared for new responsibilities, contemporary opinion may be doubtful about ultimate values, and so on. The building society movement, perhaps, shares these disadvantages to some extent, though less fully than might be supposed at first sight.

The facts that building societies control funds exceeding £400 million and that during each of the past few years they have been entrusted with upwards of 10 per cent. of the nation's new annual savings, are proof of sufficient economic significance to merit the notice which they have recently received. This paper is chiefly directed to a discussion of the more noteworthy economic aspects of the movement; adequate note will be taken of the mechanics of building societies to enable these aspects to be appreciated. A general review will, within the limits of the space available, be attempted, but special emphasis will be placed on points of social significance on which existing literature throws little or no light.

II

The Evolution of the Building Society Movement

Building societies may have experienced a sudden fame, but it was not the least fortunate circumstance in connection with the movement that the head on which it descended was well enough seasoned not to be turned. For building societies in England claim an extended history; for instance, their history is longer than that of joint-stock banking in England, excluding the Bank of England. One of the movement's greatest misfortunes is that it did not kindle the interest of the Webbs, as, with a slight tilting of the balance, one feels, it might easily have done. Thus building societies lack an adequate historical survey, though much is

known in broad outline. The first building society is generally regarded as having been established in Birmingham in 1781—over 150 years ago. The closing years of the eighteenth century and the early part of its successor witnessed remarkable activity in the founding of working-class thrift and kindred movements. "The industrial revolution," says Mrs. Sidney Webb, "opened out channels of communication to the democratic organisation of labour. The massing of men under the factory system . . . lent the opportunity and supplied the stimulus to the formation and development of political, trade union and co-operative association." Many building societies were founded by working men with the humblest objectives and often in conjunction with a church or chapel. Little is known about the first recorded building society except that it was founded and that it was not strictly comparable with the modern society. Thereafter, apparently, more or less steady progress was made. The Legislature first took notice of building societies in 1834, when they were certified under the Friendly Societies Act of that year. Two years later, in 1836, they were deemed of sufficient importance to justify a special Act relating exclusively to building societies. The earlier societies were terminating societies—that is, "a society which by its rules is to terminate at a fixed date, or when a result specified in its rules is attained." The first permanent society—the predominant type now existing—was evolved about 1846; a permanent society "has not by its rules any such fixed date or specified result at which it shall terminate." By 1871 the movement had attained such dimensions that a Royal Commission was appointed to inquire into and report upon the working of societies. The Commission's report resulted in the passing of the Building Societies Act, 1874, which, with the later Act of 1894, form the main statutory basis of present-day practice. The development of the movement was accompanied by occasional excesses which recall the South Sea boom; there were periodical disasters which, if the experience of banking, insurance and the joint-stock company world generally affords any indication, seem almost inevitable. The one redeeming feature is that the lessons of the past have been learned and that the movement to-day enjoys the stability which comes with maturity.

III

The Mechanics of the Movement

"A building society is a combination of investors and borrowers operating under a measure of Government control to promote

the ideals of thrift and home-ownership." Before discussing the achievements and problems arising from the pursuit of these ideals, it may be helpful to outline the mechanics of the building society movement. An impressionistic picture of its financial structure is conveyed by the following summary :—

The Building Society Movement. Great Britain, 1931

Liabilities.			Assets.		
	(£ Millions.)	Per-centage.		(£ Millions.)	Per-centage.
To Shareholders	341·8	81·5	Balance due on Mortgages .	360·2	85·9
To Depositors and Other Creditors	57·3	13·7	Other Assets .	59·0	14·1
Undivided Profit and Reserve .	20·1	4·8			
	419·2	100·0		419·2	100·0

The number of persons embraced by the movement in 1931 was as follows :—

Share investors	1,577,905
Depositors .	465,150
Borrowers .	802,534
Total	2,845,589

The proportions which the foregoing summary of the movement's financial structure indicate vary somewhat widely between society and society. Moreover, under the rapidly changing economic conditions of modern times there is a tendency for the proportions in the movement as a whole to vary within certain limits over short periods of time. For instance, the present position is probably rather different from that disclosed in 1931, as a result of recent developments in the monetary situation. The following notes summarise the investment aspects of the principal factors in building society finance; and notes on Government control and the organisation of the movement are also added.

Deposits

Deposits, though financially the least important of the two main heads under which building societies derive funds, are the more favoured by statute. In the circumstances it is somewhat remarkable that the proportion is not higher. In the earlier years of the present century the proportion was as high as 36 per cent., but in the meantime there has been a steady decline to the latest

figure of 13·7 per cent. The depositor is accorded special protection by the Building Societies Act, 1874. Thus a society may not receive deposits in excess of two-thirds of its mortgage asset for the time being; and a number of societies limit by rule still further the amount which they will receive. The depositor is entitled to priority as regards withdrawal on a winding up, but not otherwise. There is thus ordinarily a substantial margin of security behind deposits. Indeed, there have been suggestions that building society deposits should be allowed to rank as Trustee investments, but in some sections of the movement it is recognised that there would be considerable difficuties in giving effect to this suggestion. A society is forbidden by Statute to accept deposits except on the terms that not less than one month's notice is required before repayment or withdrawal can be made. A depositor, *qua* depositor, is not *ipso facto* a member of a society, but he may automatically become a member if the rules so provide. The rates of interest paid on deposits have recently been revised in order to bring them into harmony with the conditions created by the Government's Conversion Scheme in connection with 5 per cent. War Loan. Many societies are currently paying $3\frac{1}{2}$ per cent. per annum net and free of liability to income tax on deposit accounts, this being equivalent to $4\frac{2}{3}\frac{1}{2}$ per cent. less tax to those liable to the full rate of tax.

Share Capital

Share capital is by far the more important element in building society finance. The share investor is not, like the depositor, accorded any special statutory protection, but occupies virtually the same position in relation to his society as an ordinary shareholder in a joint-stock company, though the liability of a building society shareholder is limited to the amount actually paid or in arrear on any share. Shares usually fall into two broad groups—*i.e.* fully-paid shares and partly-paid or subscribing shares. The nominal value of a fully-paid share is invested in full at the outset. Partly-paid shares are subscribed for by instalments. In a few societies the amount of the periodical subscription to a partly-paid share account is fixed. The majority of societies, however, now allow any sum from 1*s*. or slightly more to be subscribed at any time. The procedure in acquiring and realising building society shares has been simplified to the utmost with a view to meeting the needs of those who are unversed in the technicalities of the wider world of investment. Shares can be obtained at any time (provided no temporary restrictions are in

force) by direct application either in person or in writing to a society's office. They can be withdrawn, together with any accrued interest, in the same way and with almost equal facility. One month's notice of withdrawal is usually required, but small sums and emergency withdrawals can often be obtained at shorter notice. There is no statutory limit to the amount which an individual may invest in a building society. The rules of some societies, however, impose limits, but even where they do not, the arrangement under which most societies are assessed for income tax has operated in many cases to limit the individual holding to not more than £5,000.

The yield on building society shares is not uniform, but most of the larger societies currently offer a maximum rate of 4 per cent. net and free of liability to income tax, which is equivalent to 5⅓ per cent. less tax to those liable to the full rate of tax. The yield on building society investments is net and the recipient does not incur any liability for income tax. This is due to a special arrangement which the societies have with the Inland Revenue Authorities under which they consent to direct assessment. The rate of tax which the societies are required to pay under the existing agreement is equal to two-fifths of the standard rate; this applies to accounts not exceeding £5,000. The full standard rate of tax is paid on the yield upon accounts in excess of £5,000, husband and wife being treated as one person for this purpose; on accounts held on behalf of associations of persons; and on allocations to reserves and undistributed profits. A building society investor is precluded from obtaining any refund of tax if he is not liable to the full standard rate, as he may if tax at the full rate has been deducted at source. The circumstances accounting for this special income-tax concession are discussed later. Interest from building society investments, however, is included in total income for the purpose of charging Sur-tax.

Undivided Profit, etc.

The proportion of undivided profit and reserve to total liabilities has shown a very slight declining tendency since the war and pre-war years. Taken as a whole, however, the financial position of the building society movement is much stronger than when the undivided profit and reserve formed a slightly higher proportion of total liabilities. Thus, the proportion of the balance due on mortgages where repayments were upwards of twelve months in arrear or in possession at the end of 1930 for all societies amounted to only 0·2 per cent., whereas before the war this

proportion was generally about 5 per cent. Moreover, the reserve fund of a building society is not strictly comparable with that of an ordinary trading company, since the building society has, by long experience in a single field of activity, reduced the risk factor to substantially smaller proportions than is possible for the average trading company.

Advances

The purpose for which building societies are formed is, according to the Building Societies Act of 1874, "for making advances to members out of the funds of the society upon security of freehold, copyhold or leasehold estate, by way of mortgage." A member of a building society may obtain an advance for the purpose of erecting, purchasing or improving property, either for occupation or investment, as well as for paying off existing mortgages. A society advances only on the security of first mortgage and may only accept a second mortgage as additional security to its own first mortgage. A society will usually advance up to 75 per cent. or 80 per cent. of its surveyor's valuation or the purchase price, whichever is the lower figure. It is a primary duty of a society to ensure an adequate margin of security on each advance, as in the event of a sale through the default of the borrower a society should be in a position fully to reimburse itself. It will be seen that the borrower is ordinarily required to find a minimum stake of at least one-fifth of the value of the property. Each property is approved for mortgage purposes by experienced valuers appointed by the society, while the mortgage debt is gradually reduced by every repayment made by the borrower. In special cases where the valuer notes a high risk factor much less than a normal advance may be made, or the proffered security may be completely rejected. In some societies an advance beyond the normal 75 per cent. or 80 per cent. may be obtained by the provision of collateral security. This sometimes takes the form of a guarantee or indemnity policy issued by an insurance office; a guarantee by a Local Authority under Section 92 of the Housing Act of 1925; the deposit of gilt-edged or Trustee securities; the deposit of the deeds of other freehold or leasehold property; a lien given on a deposit account by way of guarantee. In the case of a large estate, special arrangements are generally made with the estate developer whereby he deposits cash so that advances in excess of the normal may be made; the society retains a lien on such deposits until a proportion of the mortgage debt has been repaid. The repayment of the advance can usually be

arranged over any period from five to sixteen years and in some cases up to and slightly over twenty years. The repayments are generally made monthly and include principal and interest. If a member so desires it is possible to redeem a mortgage at short notice at any time before the date of redemption originally arranged. A borrower may also sell the property in the ordinary way and redeem the mortgage from the proceeds of the sale, or alternatively arrange for the mortgage to be transferred to the purchaser. Many societies operate a scheme in conjunction with an insurance company under which the life of the borrower is insured throughout the period agreed for the repayment of the mortgage. Borrowing members are not usually permitted to deduct income tax from their repayments, but they are entitled to relief from their Schedule A assessment in respect of mortgage interest paid to the society in its financial year. The rate of interest charged for new advances varies slightly in different parts of the country; the rate of 5½ per cent. is widely in force in the Metropolitan area and the Home Counties; a rather lower rate is sometimes current in other parts of England.

Other Assets

Other assets mainly consist of Trustee securities and cash. Under the Building Societies Act societies are required to invest surplus funds in Trustee investments, real or leasehold securities, etc., they may purchase, build, hire or take upon lease any building for conducting their business.

Government Control

Building societies, being subject to a measure of Government control, share with the limited range of more or less kindred organisations the experience of having from early days induced reluctant Governments to depart from the policy of *laissez faire.* This serves as an indication of the light in which they were originally viewed, for with few exceptions the application of statutory supervision in the earlier days of the nineteenth century was confined to institutions catering for those then generally described as the "laborious classes." The method of supervision applied to building societies is common to thrift, benevolent, friendly societies and kindred institutions; the same fundamental principles have also been applied in the supervision of insurance companies. "It is, I think, beyond question," says the Deputy Registrar of Friendly Societies, whose office administers the Building Societies Acts, "that the most important provision of the Act of 1874, from the point of view of Government control, is

that contained in Section 40, to the effect that every society shall once at least in every year prepare and send to the Registrar within fourteen days after the annual or general meeting at which it was presented, an annual account and statement of receipts and expenditure and a general statement of funds and effects, liabilities and assets." Section 2 of the Act of 1894 gave the Registrar power to prescribe a form of annual statement. Thus, uniformity was assured and ambiguity removed and much information, at least from the accounting standpoint, relating to the operations of societies is now available. Again, the Act of 1894 provides for a very stringent audit of the societies' accounts. The auditors must certify, among other things, that they have actually inspected the mortgage deeds in respect of each of the properties mortgaged. The Registrar has powers for undertaking special investigations, etc., and he may institute summary proceedings for failure to comply with the provisions of the statutes. The Chief Registrar of Friendly Societies, Sir George Stuart Robertson, K.C., in reviewing the effectiveness of this statutory control, has said that "the Building Societies Acts themselves provide such stringent restraints on the method of operation of the societies that good conduct is almost inevitable. . . . One great advantage of these restraints has been that building societies have hardly ever been used in our generation as instruments for exploiting the public." Sir George has also ventured the interesting dictum that the "strength and success of the building society movement proves, I think, that statutory restraints, provided that they are well conceived and well adapted to the business to be regulated, form no obstacle to successful operation."

The Organisation of the Movement

The organisation of the movement is not the least interesting aspect of building society work. Although some societies have attained dimensions which entitle them to rank with many of the larger institutions of our financial organisation, the movement has characteristics which are almost unknown in the fields of, say, banking, insurance, etc. As the latest statistics indicate, there are 1,013 societies, having total assets of £419,000,000, giving the average society total assets of £410,000. The organisation of the movement, however, is on very different lines from what this average might suggest. Thus, Table A compares the distribution of societies according to the size of their mortgage assets and reveals the large number of societies having mortgage assets of distinctly modest proportions.

TABLE A.

Size of Building Societies.

Societies where Mortgage Assets amounted to: (£)	1914. Number of Societies.[1]	1914. Percentage.	1930. Number of Societies.[2]	1930. Percentage.
Under 1,000	131	8·9	32	3·2
1,000 and under 5,000	387	26·2	113	11·3
5,000 ,, ,, 10,000	292	19·8	113	11·3
10,000 ,, ,, 30,000	349	23·6	242	24·3
30,000 ,, ,, 50,000	116	7·9	102	10·2
50,000 ,, ,, 100,000	92	6·2	150	15·2
100,000 ,, ,, 150,000	41	2·8	65	6·5
150,000 ,, ,, 200,000	13	0·9	33	3·3
200,000 ,, ,, 250,000	10	0·7	18	1·8
250,000 ,, ,, 500,000	20	1·36	52	5·2
500,000 ,, ,, 750,000	9	0·6	24	2·4
750,000 ,, ,, 1,000,000	6	0·4	10	1·0
1,000,000 ,, ,, 2,000,000	7	0·5	20	2·0
2,000,000 ,, ,, 3,000,000	1	0·07	8	0·8
3,000,000 ,, ,, 4,000,000	1	0·07	2	0·2
4,000,000 ,, ,, 5,000,000	—	—	2	0·2
6,000,000 ,, ,, 7,000,000	—	—	1	0·1
7,000,000 ,, ,, 8,000,000	—	—	2	0·2
8,000,000 ,, ,, 9,000,000	—	—	2	0·2
11,000,000 ,, ,, 12,000,000	—	—	2	0·2
12,000,000 ,, ,, 13,000,000	—	—	1	0·1
15,000,000 ,, ,, 16,000,000	—	—	1	0·1
27,000,000 ,, ,, 28,000,000	—	—	1	0·1
52,000,000 ,, ,, 53,000,000	—	—	1	0·1
Total	1,475	100·00	997	100·0

[1] Number of Societies with mortgage asset.
[2] Number of Societies making return in "Directory and Summary," 1931, for 1930.

In 1930 [3] over 75 per cent. of the societies had mortgage assets of less than £100,000, while at the other end of the scale only slightly over 1 per cent. of the societies had mortgage assets exceeding £5,000,000. In comparing this position with that in 1914 it is clearly seen as a heritage of the past, since the overwhelming proportion of societies then had mortgage assets of less than £100,000. In other words, the growth of the building society movement in recent years has been mainly due to the rapid expansion of a small number of progressive societies. At the end of 1930 there were forty-seven societies, equivalent to 4·6 per cent. of the number on the register, with total assets exceeding £1,000,000 and their mortgage asset was equivalent to 76 per cent. of the mortgage asset for the whole movement. The larger units of the

[3] At the time of writing, the last annual report of the Chief Registrar of Friendly Societies dealing with Building Societies relates to 1930: further references to the Chief Registrar relate to his annual reports on Building Societies.

building society movement neither disregard nor attempt to disparage the work of the smaller societies, for they are also giving expression to the ideals of the movement. It is impossible, however, to ignore certain significant pointers in the activities of the building society movement. There is a notable tendency for new business to gravitate to the larger society. It would appear that magnitude and the quality of the service which the large society is able to offer are influencing both investors and borrowers. As long ago as 1913 the Chief Registrar remarked that "the tendency of the larger societies towards the absorption of building society business at the expense of the smaller ones, which was commented on in the report for 1912, is amply borne out by the figures for 1913." During 1930 the forty-seven largest societies advanced 80 per cent. of the total sum advanced by the movement. While the utmost respect is entertained for the work of the small societies, it is recognised that the larger unit possesses definite advantages. In its personnel it is able to secure high technical ability; by modern methods of business organisation and administration it can reduce management expenses to a low level; its mortgages are spread over a wide area and thus risk is minimised. In brief, the larger building society shares most of the advantages which characterise the large joint-stock bank in comparison with the old type of small localised private bank; and it should be noted that in recent years the larger societies have pursued a policy of active branch development. The circumstances of the movement, indeed, seem to offer scope for a judicious measure of amalgamation, especially where there are several societies operating in a comparatively restricted area. Amalgamation, in view of these conditions, may not only be desirable in itself but would facilitate the possibility and increase the effectiveness of common action within the movement, which, it would appear, will be increasingly necessary in the future. Until recently the societies were strongly —almost defiantly—individualistic, but during the past year or two there has been a welcome tendency to co-operate on some major questions of policy; though the movement will have to develop still further if it is to be comparable to that usually associated with industries, etc. of the same economic significance as building societies. If opportunity offers, however, there is a strong case for simplifying the cumbersome amalgamation procedure prescribed by the Building Societies Acts.

An analysis of the geographical distribution of building societies in Great Britain discloses two particularly strong centres, namely, the North of England and London and the Home Counties.

Table B indicates that 47·5 per cent. of the total assets in 1930 were held by societies in the Northern area and 31·7 per cent. by societies in London and the Home Counties.

TABLE B.

The Building Society Movement in Great Britain.

Division.	1913. Total Assets (£ millions).	1913. Percentage.	1930. Total Assets (£ millions).	1930. Percentage.
England :				
Northern	28·9	44·5	176·2	47·5
North Midland	8·1	12·5	44·4	12·0
South Midland	1·0	1·5	3·5	1·0
Eastern	1·0	1·5	4·4	1·2
London and Home Counties	17·7	27·3	117·9	31·7
Southern and Western	4·8	7·4	17·7	4·8
Wales	1·5	2·3	3·3	0·9
Scotland	1·9	3·0	3·4	0·9
Total	64·9	100·0	370·8	100·0

The comparison between the geographical distribution of the societies in 1930 and 1913 shows fewer changes than might have been expected in view of the enormous expansion of the movement in the intervening years; although the London societies have recently experienced remarkable development, the Northern societies have maintained their position in the movement. The two principal centres of activity have rather gained ground at the expense of other areas. The exceptional strength of the movement in the North before the war is not without bearing on a distinguishing feature of building society finance as between the North and the South. The tendency for societies to form part of the unorganised capital market—" more or less shut off," as Mr. A. W. Flux described it, " from the levelling influences of a market organisation "—was seen most distinctly in Northern societies; and before the war, when an active branch policy had not been developed, building society operations were much more localised. The Northern societies tended to draw a regular supply of savings from a special type of small investor whose chief concern was security for his hard-won capital and who was uninfluenced by the larger currents in the investment markets; his local patriotism was strong and he preferred to entrust his savings to the administration of persons with whom he was often personally acquainted. This tendency has persisted until the present, or at least strongly

colours (consciously or unconsciously) the present-day financial policy of Northern societies. The result is that there is sometimes a slight disparity between rates of interest current in the North and the South of England; and, incidentally, this dissimilarity in financial practice as between the North and the South of England is not confined to building societies.

IV

Building Societies, 1870–1931

Investment Aspects

Table C summarises the progress of the movement since about 1870; accurate statistics are not available before 1890.

TABLE C.

The Growth of the Building Society Movement in Great Britain.

Year.	Number of Societies.	Total Membership.	Mortgage Asset (£).	Total Assets (£).
1870 (*circa*)[1]	2,088	820,000	—	18,286,000
1890	2,795	646,388	47,760,404	51,494,480
1900	2,286	584,651	45,641,411	59,767,118
1910	1,723	626,366	59,696,055	76,286,773
1913	1,550	617,423	60,733,464	65,315,898
1918	1,336	625,013	53,207,803	68,497,948
1919	1,311	672,369	57,865,967	77,346,603
1920	1,271	747,589	68,811,690	87,060,358
1921	1,226	789,052	75,503,123	95,265,274
1922	1,184	826,032	83,724,928	107,437,541
1923	1,151	895,524	98,844,991	124,718,790
1924	1,112	1,000,988	119,744,926	144,889,705
1925	1,092	1,129,455	145,857,119	169,196,658
1926	1,064	1,257,400	171,220,815	193,856,034
1927	1,054	1,416,456	197,748,150	223,346,082
1928	1,035	1,130,066[2]	227,532,832	268,464,781
1929	1,026	1,265,329[2]	268,141,456	312,745,883
1930	1,026	1,449,432[2]	316,313,559	371,164,961
1931	1,013	1,577,905[2]	360,176,859	419,185,370

[1] Estimated by the Royal Commission on Building Societies, 1871.
[2] Shareholders only: before 1928 borrowers who were not also shareholders were included.

This table is clearly divided into two parts. First, the statistics between 1890 and 1913 broadly reveal, in terms of money, a slow and laborious progress, which was punctuated at least twice by set-backs due to notorious failures. Secondly, the progress which has recently attracted public notice has coincided with the post-war years, the movement having expanded no less than sixfold during this period. The steady decrease in the number of societies is mainly the result of terminating societies

coming to an end. There were 189 terminating societies at the end of 1930, having total assets of £2,261,058.

The first part—covering the period between 1890 and the eve of the war—relates to a distinct phase in the evolution of the building society movement. Before the war building societies, on the investment side, were generally regarded as essentially institutions catering for the smaller type of capitalist—*i.e.* predominantly the wage-earning class. Probably small shopkeepers and others of similar social status utilised their services, but the wage-earning class, together with the lower middle class, no doubt formed the bulk of the membership. This finds reflection in the facts that the societies were accorded special protective legislation administered by the Chief Registrar of Friendly Societies, while for some years they have concluded agreements with regard to income tax which embodied concessions recognising that the majority of their members were not subject to anywhere near the full standard rate of tax. Apparently, in pre-war days, small savings institutions frequently made rather laboured progress when they were able to make headway at all. As might have been expected, their fortunes were mainly determined by the varying economic well-being of the wage-earning class. When real wages were rising and employment good there was generally a tendency for the funds entrusted to small savings institutions to increase. Moreover, it would appear that there was considerable competition among institutions catering for working-class savings. Thus, the Chief Registrar, in his report for 1906, said that " Building societies have . . . many rivals desirous of participating in the successful business carried on by them," and he mentions the larger friendly societies and co-operative societies, together with life assurance companies. His reference was primarily to advance business, but the competition doubtless also extended to the investment side. Table D analyses the distribution of share accounts in the Abbey Road Building Society in 1913 (then having total assets of £721,384 and ranking sixteenth, as measured by mortgage asset, among building societies) for the light which is thrown on the social status of those using the investment service of a building society in the last complete year before the war.

Nearly 80 per cent. of the accounts were for sums of £100 or less. In point of numbers, therefore, the small investor constituted the great majority of the membership, though the writer of the article on Building Societies in Palgrave's Dictionary observes " that a much wealthier class of shareholder has come

TABLE D.

Distribution of Share Accounts.

(Abbey Road Building Society, December 31st, 1913.)

Size of Accounts (£).	Number of Accounts.	Amount at Credit of Accounts in Group (£).	Percentage of Number.	Percentage of Amount.
Up to 50	4,825	52,123	64·6	8·9
Over 50 and up to 100	979	74,976	13·2	12·9
„ 100 „ „ 150	501	61,148	6·7	10·5
„ 150 „ „ 200	365	64,998	4·85	11·1
„ 200 „ „ 250	223	50,377	3·0	8·6
„ 250 „ „ 300	149	41,812	2·0	7·2
„ 300 „ „ 350	100	32,523	1·3	5·6
„ 350 „ „ 400	73	27,717	1·0	4·8
„ 400 „ „ 450	51	21,607	0·7	3·7
„ 450 „ „ 500	45	21,607	0·6	3·7
„ 500 „ „ 600	52	28,860	0·7	4·9
„ 600 „ „ 700	24	15,619	0·3	2·7
„ 700 „ „ 800	21	16,026	0·3	2·8
„ 800 „ „ 900	15	12,586	0·2	2·2
„ 900 „ „ 1,000	16	15,664	0·2	2·7
„ 1,000 „ „ 1,500	19	22,989	0·25	4·0
„ 1,500 „ „ 2,000	4	7,003	0·05	1·2
„ 2,000 „ „ 2,500	2	4,511	0·02	0·8
„ 2,500 „ „ 3,000	—	—	—	—
„ 3,000 „ „ 3,500	2	6,457	0·02	1·1
„ 3,500 „ „ 4,000	1	3,525	0·01	0·6
Total	7,467	582,128	100·00	100·0

in since the passing of the Act (1874)." What has been termed the "savings bank rule," however, applied to some extent, since a limited number of members were responsible for a large proportion of the savings, 22·2 per cent. of the members being credited with 78·2 per cent. of the total amount at credit. Mr. T. S. Ashton, of Manchester University, in an analysis of Savings Banks deposits, has pointed out "that a relatively small number of richer depositors are responsible for the bulk of the savings."

The second part into which the table divides—from the end of the war to the present—is obviously the more interesting. The degree in which building society activity has expanded in little more than a decade is certainly an extraordinary achievement. Before analysing the causal factors in this development, it is not without interest to compare it with the growth in some other small savings media. Table E makes this comparison.

While there has been a tendency for these small savings to increase, building societies show by far the greatest rate of expansion. The Chief Registrar, discussing in his report for 1929 the reasons for the rapid increase in the funds of building societies, remarked that "The combination of security and a high

TABLE E.

Amount due to Investors in various Thrift Organisations.

Description.	1918 (£ millions).	1930 (£ millions).	Percentage Increase.
Building Societies [1] . . .	64·2	353·6	451
National Savings Certificates [2] .	137·7	358·0	160
Post Office Savings Bank:			
Deposits	234·6	290·2	24
Holdings of Govt. Securities .	185·7	188·5	2
Trustee Savings Banks:			
Ordinary Dept. . . .	61·0	79·0	13
Special Investment Dept. . .	14·1	54·1	284
Holdings of Govt. Securities .	15·3	39·3	157

[1] Including, in amount due to depositors, small amount due to other creditors.
[2] Excluding interest.

(*Note.*—The dates on which the financial years in the above table end do not coincide; in general the figures relate to the year in which the financial year ends.)

rate of interest, with facilities for prompt withdrawal and freedom from income tax deduction, has no doubt had a considerable attraction for the ordinary income-tax-paying investor and is a sufficient explanation of the rapid expansion of share capital." This is doubtless adequate up to a point. The extent of the expansion, however, combined with the development which has taken place in other savings media, definitely points to the operation of some underlying and widespread factors. These factors, indeed, are largely inherent in the economic history of the post-war years. The facts are now too well known to require detailed recapitulation here. Professor Bowley has summarised them thus:—

> "The general result of the whole system of taxation, wage-adjustments and social expenditure has been a very marked redistribution of the National Income. . . . The very rich have less than half their pre-war income (allowing for taxes and change of prices); the least well off of the working class have gained most. Between these two extremes the tendency is almost throughout in the same direction."

In particular, the calamitous fall in prices since 1929, in conjunction with the rigidity of wage rates, has presented many with an uncovenanted benefit which has provided a markedly widening margin for saving. Moreover, the frequently disastrous course of investment history since 1929 has been a powerful influence in deflecting new savings to "safety-first" channels.

The result has been a partial and temporary boycott of Stock Exchange securities; and the market for new capital issues has been extraordinarily quiescent. Added to this there have been recurring periods of cheap money, which have provided incentives to transfer accumulated balances from banks and elsewhere to more remunerative fields though in spite of this bank deposits as a whole, reflecting inactive trade, have increased. These factors have been duly reflected in building society history since the war. Table F, which analyses the distribution of Head Office share accounts of the Abbey Road Building Society at September 1932, bears witness to the changed conditions; the Society's total assets at this date amounted to over £40,000,000 and it ranked second among building societies.

TABLE F.

Distribution of Share Accounts.

(Abbey Road Building Society, Head Office, 1932.)

Size of Accounts (£).	Number of Accounts.	Amount at Credit of Accounts in Group (£).	Percentage of Number.	Percentage of Amount.
Up to 1	51,885	16,058	37·2	0·07
Over 1 and up to 50	29,339	704,401	21·2	3·0
" 50 " " 100	11,480	857,973	8·3	3·7
" 100 " " 150	5,845	1,064,026	4·2	4·5
" 150 " " 200	8,518	1,033,944	6·2	4·4
" 200 " " 250	4,980	1,110,938	3·6	4·7
" 250 " " 300	3,927	1,098,325	2·8	4·7
" 300 " " 350	2,776	897,401	2·1	3·8
" 350 " " 400	2,354	902,106	1·7	3·9
" 400 " " 450	1,736	733,008	1·3	3·1
" 450 " " 500	2,927	1,392,766	2·1	5·9
" 500 " " 600	3,222	1,655,241	2·3	7·1
" 600 " " 700	1,694	1,094,247	1·2	4·7
" 700 " " 800	1,281	965,914	0·9	4·1
" 800 " " 900	817	700,215	0·6	3·0
" 900 " " 1,000	1,670	1,643,224	1·2	7·0
" 1,000 " " 1,500	2,370	3,027,379	1·7	12·9
" 1,500 " " 2,000	759	1,345,838	0·6	5·7
" 2,000 " " 2,500	360	800,209	0·3	3·4
" 2,500 " " 3,000	219	612,301	0·2	2·6
" 3,000 " " 3,500	115	370,483	0·08	1·6
" 3,500 " " 4,000	83	318,078	0·06	1·4
" 4,000 " " 4,500	57	244,520	0·04	1·0
" 4,500 " " 5,000	177	869,567	0·12	3·73
Total	138,591	23,458,162	100·00	100·00

The "savings bank rule" still applies; 66·7 per cent. of the number of accounts were credited with only 6·77 per cent. of the total sum involved. This, however, requires the qualification that a large proportion of the accounts up to £1 represent the

holdings of borrowers who under the rules of the Society are required to qualify as members and thus comply with the controlling Acts by opening a partly-paid share account and paying 1*s.* per £100 advanced. Many of the accounts are the result of savings accumulated through the medium of "home-safes"—often started by children—which gradually assume larger dimensions. The significant feature is the more extensive distribution of accounts in the higher ranges, thus indicating the presence of the more substantial investor. It does not necessarily follow that all societies have been affected in the same degree, but some of the larger units have doubtless had a more or less similar experience. Table G is added for convenience, as this brings together for comparison the percentage distribution of share accounts of the Abbey Road Building Society in 1913 and 1932.

TABLE G.

Comparison of Percentage Distribution of Share Accounts.

(Abbey Road Building Society, 1913 and 1932.)

Size of Accounts (£).	Percentage of Number.		Percentage of Amount.	
	1913.	1932.	1913.	1932.
Up to 50	64·6	58·4	8·9	3·07
Over 50 and up to 100	13·2	8·3	12·9	3·7
,, 100 ,, ,, 150	6·7	4·2	10·5	4·5
,, 150 ,, ,, 200	4·85	6·2	11·1	4·4
,, 200 ,, ,, 250	3·0	3·6	8·6	4·7
,, 250 ,, ,, 300	2·0	2·8	7·2	4·7
,, 300 ,, ,, 350	1·3	2·1	5·6	3·8
,, 350 ,, ,, 400	1·0	1·7	4·8	3·9
,, 400 ,, ,, 450	0·7	1·3	3·7	3·1
,, 450 ,, ,, 500	0·6	2·1	3·7	5·9
,, 500 ,, ,, 600	0·7	2·3	4·9	7·1
,, 600 ,, ,, 700	0·3	1·2	2·7	4·7
,, 700 ,, ,, 800	0·3	0·9	2·8	4·1
,, 800 ,, ,, 900	0·2	0·6	2·2	3·0
,, 900 ,, ,, 1,000	0·2	1·2	2·7	7·0
,, 1,000 ,, ,, 1,500	0·25	1·7	4·0	12·9
,, 1,500 ,, ,, 2,000	0·05	0·6	1·2	5·7
,, 2,000 ,, ,, 2,500	0·02	0·3	0·8	3·4
,, 2,500 ,, ,, 3,000	—	0·2	—	2·6
,, 3,000 ,, ,, 3,500	0·02	0·08	1·1	1·6
,, 3,500 ,, ,, 4,000	0·01	0·06	0·6	1·4
,, 4,000 ,, ,, 4,500	—	0·04	—	1·0
,, 4,500 ,, ,, 5,000	—	0·12	—	3·73

Taking the building society movement as a whole, the average shareholding in 1930 was £208. The Chief Registrar returns the average for the 47 large societies in 1930 as £240 and for 699 smaller permanent societies in England at £146. Table H compares the average shareholding in building societies with the

average amount due to investors in a number of other thrift institutions.

Table H.

Average Amount due to each Investor in various Thrift Organisations in 1930.

Description.	Amount (£).
Building Societies (Share Accounts)	208
National Savings Certificates	45 [1]
P.O. Savings Bank (Deposits)	29
Trustee Savings Banks (Ordinary Dept.)	33

[1] Estimated on basis of information supplied by National Savings Committee.

It is evident that the average shareholding in building societies is considerably higher than in some other thrift institutions.

Building societies employ their funds by way of mortgage, and this is, "under any usual classification, a long-period function." It has already been pointed out that societies offer the investor easy withdrawal facilities, in many cases not more than one month's notice being required. In these circumstances, it is of interest to inquire what turnover of funds the societies normally experience each year. This is the more desirable since the precise position of building societies in this matter is sometimes misconceived. Table I analyses share withdrawals in relation to liabilities to shareholders from 1921 to 1930.

Table I.

Share Withdrawals in Relation to Total Liabilities to Shareholders.

Year.	(1) Liabilities to Shareholders (£ millions).	(2) Share Withdrawals (including interest) (£ millions).	Percentage of (2) to (1).
1921	70·9	13·4	18·9
1922	80·4	12·9	16·1
1923	93·5	14·0	15·0
1924	109·0	16·8	15·4
1925	127·8	19·9	15·6
1926	147·7	22·2	15·0
1927	172·8	25·9	15·0
1928	213·2	32·1	15·0
1929	250·2	36·8	14·7
1930	302·8	41·7	13·8

From this it will be seen that the proportion of withdrawals has been steadily declining, until in 1930 the proportion of 13·8

per cent. was reached. Table J approaches the problem from a different angle and compares share withdrawals to additions to share capital.

TABLE J.

Share Withdrawals in Relation to Additions to Share Capital.

Year.	(1) Additions to Share Capital (including interest) (£ millions).	(2) Share Withdrawals (including interest) (£ millions).	Percentage of (2) to (1).
1921 . . .	20·4	13·4	65·7
1922 . . .	22·5	12·9	57·3
1923 . . .	27·1	14·0	51·7
1924 . . .	32·3	16·8	52·0
1925 . . .	38·8	19·9	51·3
1926 . . .	42·1	22·2	52·8
1927 . . .	51·0	25·9	50·7
1928 . . .	66·8	32·1	48·1
1929 . . .	73·0	36·8	50·4
1930 . . .	94·2	41·7	44·3

The proportion shows some variations, but, on the whole, the tendency has been downward. It is true that the position of individual societies varies somewhat widely, the proportion in the case of some Northern societies being markedly high. Moreover, under current conditions withdrawals may be higher than in the past, but this point will be discussed more fully presently. Broadly speaking, however, building societies do not experience the turnover of funds which is popularly associated with joint stock banks, small savings banks, etc. Nor should it be overlooked that the societies receive a constant stream of incoming funds due to the monthly repayments in connection with advances. Furthermore, the societies emerged from the exacting test of the financial crisis of the autumn of 1931 with their credit unimpaired. All the same, they are not absolved from the responsibility of maintaining a due degree of liquidity; and the degree of liquidity to be maintained may vary from time to time according to changing economic conditions.

The wider bearings of the building society investment service merit a passing reference. The movement takes special pride in the facilities which it offers for the encouragement of small savings, especially in view of the circumstances which are held to render an increase in these savings necessary. Before the war the bulk of the nation's saving was undertaken by a comparatively narrow circle of the richer members of the community, but since then their capacity to save—in particular, as a result of high

taxation, partly necessitated by a policy of generous expenditure on social services—has appreciably diminished; consequently, the post-war rate of saving compares, when allowance has been made for the rise in prices, very unfavourably with pre-war experience; and this situation is, in the main, if not invariably, regarded with misgiving. The small savings class is therefore considered to be under a special obligation to make every effort to remedy the deficiency, both on economic and social grounds: "a democracy that will not let its wealthy save, and will not save for itself, must slowly sink in the scale of civilisation." At the other end of the scale, the movement, by the extent to which it—or rather the larger societies—has attracted the substantial investor is now definitely part of the organised capital market. The writer, in an article written in 1930,[1] ventured to draw attention to this aspect of building society development. The following references have, on balance, gained, rather than lost, point by the passing of time:—

> "As Mr. A. W. Flux has pointed out, 'the market for capital is thus not so perfectly organised that all units of supply are interchangeable. Certain parts of the market are peculiarly well organised, but there are other parts more or less shut off from the levelling influences of a market organisation.' In the past, building societies have been closely connected with those 'other parts more or less shut off from the levelling influences of a market organisation,' but to-day this is much less true, although it is still partly applicable. Two factors which have linked the building society with the capital market . . . are the increasing interest which the more substantial investor is taking in the movement and the increasing interest which is being taken in Stock Exchange securities by those who formerly invested their savings in a much more restricted field. . . . It is possible that this tendency will become more and more evident in the coming years."

Again, the relations of building societies to the money market were discussed and it was pointed out that:

> "To the building society the most important single factor in the money market is Bank rate . . . when Bank rate is high . . . a considerable rate of interest is earned on

[1] "Building Societies as Financial Institutions"—*Building Societies Year Book*, 1930, pp. 345–51.

bank deposits : consequently, there is less incentive to transfer accumulated balances to higher interest-earning channels, and hence building societies may experience some retardation of incoming funds. On the other hand, when Bank rate is low the depositor receives a distinctly modest return and therefore eagerly seeks more remunerative investments, among which he places building societies. Moreover, the rate of interest charged by joint-stock bankers for advances is generally 1 per cent. above Bank rate with a minimum of 5 per cent. A high Bank rate thus means a high rate for advances, and at such times there is a tendency for mortgages which are being financed by bank loans to be offered to building societies. . . . Building societies may tend to become rather more responsive to important movements in the money market in the future."

Mortgage Service

Table C, on p. 12, indicates the growth in building societies' mortgage balances from 1890 to 1931. This column, like that indicating the expansion of total assets, clearly divides into two distinct periods—pre-war and post-war. During the thirteen years from 1901 to 1913 (1901 is the first year for which the advance figure is available) the average annual advances of the movement amounted to £9 millions. To a large extent the societies' mortgage service was utilised by persons of a similar social status to those who formed the bulk of its investing membership, though possibly there was a slight bias in an upward direction. At any rate, the movement welcomed the small advance and expressed pride in the way that it was helping working men to become home-owners. Thus the Chief Registrar remarked in 1915 that

"the most satisfactory feature . . . is the continued increase in the proportion of mortgages of £500 and under. Mortgages of this class are probably in the majority of cases from persons purchasing the houses they occupy, and an increase in the proportion of such mortgages is, therefore, to be welcomed as evidence of a wider appreciation amongst persons having small or modest incomes of the utility of the building society as a means of improving their position."

Again, 51 per cent. of all societies' mortgage balances in 1911 was in respect of advances not exceeding £500, 19·1 per cent. being

in respect of advances not exceeding £1,000. Although the scale of the movement before the war was relatively small compared with later years, it is important to note that it was rendering services of exceptional value in relation to the housing situation of the time. Except for the few years immediately preceding 1914, it is true over a wide field that houses to let could be obtained fairly easily by wage-earners. Hence all who availed themselves of the societies' mortgage service did so voluntarily and from conviction of the merits of home-ownership, while many were enabled to acquire property as an investment. The exact significance of building societies in relation to other agencies in the provision of housing finance cannot be determined; indeed, housing finance considered as a whole presented then, as now, whole tracts about which accurate information was conspicuous by its absence. In his report for 1915, however, the Chief Registrar remarked: "During the years 1901–15 the total amount advanced was over 135¾ millions sterling, or sufficient, supposing the average value of the houses purchased to have been £500, and two-thirds of their value to have been lent on mortgage, to enable housing accommodation for over two million people (on the basis of five persons to a house) to be acquired." Assuming the same facts regarding the value of the houses and the proportion advanced, the position might be summarised in another way: the average number of houses financed each year between 1901 and 1915 was equivalent to about 25 per cent. of the average annual supply of new houses. Of course, in actual practice the societies advanced on many old properties.

The second period covered by the column of Table C relating to the societies' mortgage asset coincides, as previously noted, with the post-war years. During this period—from 1919 to 1931—the average annual advances amounted to £48 million, as compared with average annual advances amounting to £9 million for the period 1901 to 1913; a more striking comparison is provided by the average annual advances for the three years ended 1931, at £84 million, against the corresponding figure of £8 million for the three years ended 1913. The extent of the recent expansion of the mortgage asset strongly suggests that this branch of building society activity has shared the experience of the investment side in being subject to special influences: it is only necessary to refer to the post-war housing problem. Before attempting to assess, as far as this is possible, the reactions of the housing problem on building societies' recent mortgage activity, the nature of the housing problem may be sketched in barest

outline, followed by an analysis of the relevant facts regarding the societies' advance business. It is now a matter of popular history that immediately the war was over the nation was conscious of an exceptionally acute housing shortage; the factors which produced this situation are equally common knowledge. Before the war the provision of houses was almost entirely the function of the private investor, but at the signing of the Armistice he not unnaturally refused, despite the great housing shortage, to resume his pre-war function. The Rent Restriction Acts doomed non-occupying owners of existing small dwellings to an uneconomic return; inflated building costs discouraged the investment of further private money in new houses; in short, the whole housing position was abnormal. The State urged Local Authorities to assist in filling the breach and provided subsidies, while it also sought to stimulate private building, again by the provision of subsidies. As a result of this stimulus—and latterly of the operation of more normal factors—approximately 2,000,000 houses have been erected in England and Wales since 1919. This obviously represents a gigantic housing effort. It is scarcely conceivable that this exceptional housing activity could have been without influence on the scale, if not on the character, of building society operations. What, in fact, have been the consequences to building societies? what has been their contribution to the solution of the housing problem? does the post-war period represent a passing phase in building society evolution? The first step is to examine, as far as possible, the significance of the societies' present operations in the realm of housing finance. Table K analyses the distribution of the societies' mortgage balances in given groups in 1930, with comparative figures for 1911.

Table K.

Distribution of Mortgage Balances.

Mortgage Balances.	1911.[1]	1930.
Up to £500	51·0	81·7
Over £500 and up to £1,000	19·1	
„ £1,000 and up to £5,000	20·9	14·9
„ £5,000	3·6	3·2
Properties in possession over 12 months	4·7	0·2
Mortgages where repayments in arrear over 12 months	0·7	
Totals	100·0	100·0

[1] The first year for which mortgages can be grouped.

Thus the societies are mainly engaged in making advances on properties in the lower ranges of value, since over 81 per cent. of the amount advanced represents individual mortgage balances of £1,000 or less. The comparison with 1911 is important. It is apparent that the proportion of the societies' mortgage asset in respect of balances of £1,000 or less was *higher* in 1930, at 81·7 per cent., by over 10 per cent, than in 1911, while the proportion of balances exceeding £1,000 has also fallen appreciably. In the circumstances, this is somewhat remarkable, for in the meantime not only has the scale of the societies' operations greatly expanded, but property values have experienced an upward bound and there has also probably been a geographical redistribution of mortgage balances with a rather greater density in areas where property values tend to be higher. Unfortunately, a direct comparison cannot be made between the percentage of mortgage balances of £500 and under in 1911 and 1930, as the information is not available for the latter year. Table L gives the proportion for the six largest societies at the end of 1930.

TABLE L.

Distribution of Mortgage Balances.

(Six largest societies, 1930.)

Mortgage Balances.	Amount (£).	Percentage.
Up to £500	50·7	38·8
Over £500 and up to £1,000	59·7	45·6
„ £1,000 and up to £3,000	15·0	11·4
„ £3,000 and up to £5,000	1·7	1·3
„ £5,000	3·8	2·9
Total	130·9	100·0

The proportion returned by these societies, at 38·8 per cent., is lower than the equivalent proportion of 51 per cent. for all societies in 1911. A large part, if not the whole, of this difference, however, would be due to the rise in property values. Moreover, it is noteworthy that this sample, although relating to the six largest societies, shows the proportion of mortgage balances of £1,000 or under at 84·4 per cent., as compared with 81·7 per cent. for all societies in 1930. The Chief Registrar, in his report for 1930, pointed out that the average advance during that year, within the range not exceeding £1,000, was £469, the average within the range exceeding £1,000 being £1,824. An extensive sample analysis of the *purchase price* of the properties on which

the Abbey Road Building Society made advances in 1932 appears in Table M.

TABLE M.

Sample Analysis of Purchase Price of Houses on which Advances were made, 1932.

Purchase Price (£).	Number of Advances.	Percentage.
1 to 100 . .	3	0·06
101 „ 200 . .	17	0·34
201 „ 300 . .	70	1·5
301 „ 400 . .	136	2·9
401 „ 500 . .	550	11·9
501 „ 600 . .	640	13·9
601 „ 700 . .	802	17·4
701 „ 800 . .	645	14·0
801 „ 900 . .	663	14·4
901 „ 1,000 . .	369	8·0
1,001 „ 1,100 . .	186	4·0
1,101 „ 1,200 . .	120	2·6
1,201 „ 1,300 . .	86	1·9
1,301 „ 1,400 . .	74	1·6
1,401 „ 1,500 . .	58	1·3
1,501 and over . .	194	4·2
Total . . .	4,613	100·0

The year 1932 was characterised by a number of abnormalities from the building society point of view, and in the case of the Abbey Road Building Society the Directors' policy was such as might tend to give prominence to houses of rather higher value. The table, however, may be accepted as affording some indication of the ranges of property on which societies with Head Offices in the Metropolis are currently making advances. The purchase price of a property is, of course, substantial evidence of the social status of the persons who will occupy it. The Abbey Road

TABLE N.

A Comparison of Social Status.

Description.	Abbey Road Society's Borrowers.	Great Britain and Northern Ireland.[1]
Wage-earners	37 per cent.	76 per cent.
Salaried	24 „	14 „
Independent Workers, Employers, Farmers, Professional	19 „	10 „
Miscellaneous	20 „	—
Total	100 per cent.	100 per cent.

Estimated by Bowley and Stamp.

Society, however, has analysed the social status of all its borrowers; the results appear in Table N, together with a comparison of the social status of the occupied population of Great Britain and Northern Ireland.

This distribution reflects, not so much perhaps any ideal or predetermined proportions, as the conditions under which an individual society makes advances in order to ensure maximum security. A comparison with the social status of the Society's borrowers in 1926 shows practically the same proportions, there being only a very slight infiltration of wage-earners. Whether these proportions of social status are common to societies as a whole is not certain; they may simply indicate the policy of a single Board of Management. In any case, it is a reasonable assumption that the proportions would be influenced in part by the occupational distribution of the areas in which a society had made the bulk of its advances.

The repayments in connection with advances, apart from their purely building society interest, have a wide bearing on social welfare, especially in view of recent tendencies affecting the price level, wage rates, employment, etc. These wider aspects of repayments cannot be discussed here and only the more important facts can be recorded. The Chief Registrar calculated the average repayment in 1930 as £85. This figure would, of course, be influenced by repayments in excess of the pre-arranged amounts, advances repaid before the expiry of the agreed term of the mortgage and by repayments in connection with the more substantial advances, while it would also be slightly influenced by the higher average advance which was probably being made

TABLE O.

Average Monthly Repayments according to Social Status.

Social Status.	Average Monthly Repayment.		
Professional	£5	19	9
Salaried, Commercial, Financial, etc.	5	17	3
Independent Worker (except professional)	5	2	9
Clerk [1]	4	12	10
Wage-earner	4	1	5
Labourer	3	6	5
Miscellaneous	4	19	6
Average for all categories	4	17	6

[1] This category is a subdivision of "Salaried, Commercial, Financial, etc.," but has been separated to cover a considerable number of cases where information in addition to the fact that the borrower is a "clerk" is not extensive.

at that time. The average pre-arranged monthly repayment in respect of an extensive sample of advances made by the Abbey Road Building Society in 1932 was £4 17*s*. 6*d*., equal to an annual repayment of £58 10*s*. Table O shows these repayments grouped according to the social status of the borrowers.

It will be seen that, on the whole, the amount of the repayment bears, as might have been expected, a close relationship to the social status of the borrower.

An analysis of the Abbey Road Society's mortgaged properties shows that the overwhelming proportion consisted of dwelling-houses, with a very small number combining shop premises, the total proportion of these two categories being over 99 per cent. of the whole of the mortgaged properties. The overwhelming proportion, again, was for personal occupation, the exact figure being 94 per cent. Taking the sample of the Abbey Road Building Society's advances made in 1932, 59 per cent. was for a period of twenty years, 20 per cent. for sixteen years, and the remainder for shorter periods. The Chief Registrar, in his report for 1917, refers to a tendency towards a more lengthy period of repayment. He quotes the average period calculated by the then Chief Registrar twelve years previously as being ten years; the Chief Registrar calculated the corresponding figure for 1917 as about fourteen years. The tendency towards a more lengthy period of repayment has doubtless been generally accelerated by the circumstances of the post-war years, and especially by the desire to lighten the annual burden of repayments due to the higher property values ruling. In actual practice, however, a large proportion of the advances do not extend over their allotted period. A borrower may receive a legacy or the proceeds of an endowment policy with which he redeems his mortgage; he may redeem his mortgage by selling the property in respect of which the advance was made; an increase in his earning power, the need for increased accommodation as a result of changes in his family life, etc. may influence his decision to sell his house, although the depression has undoubtedly reduced movement prompted by these considerations. In the earlier days of building societies a rather high proportion of the advances probably ran their allotted course, but an examination of the statistical evidence available suggests that more recently there has been a tendency towards a shortening of the average actual life of advances. There are no statistics for the movement as a whole or for an individual society; moreover, the abnormal monetary conditions of recent years—with rapidly alternating

cheap and dear money—would make any such figures misleading for normal times. There would seem to be sufficient evidence, however, to justify the conclusion that the average actual life may be rather less than half the average period of repayment originally arranged. Some decades ago anyone who desired to purchase a house with the assistance of a building society advance frequently became, in the first place, an investing member and in this capacity gradually accumulated the wherewithal to provide the personal stake in the property. As a result of the changed conditions since the war, and particularly of the increasing appreciation of building society shares and deposits purely on their investment merits, this practice is now much less extensive. A sample investigation recently made by the Abbey Road Society revealed that only 6 per cent. of the borrowers had, previously to taking out their mortgage, an investment account. It is noteworthy that 3 per cent. of the borrowers already had a mortgage with the Society.

VI

Post-War Housing and Building Societies

The conclusion indicated by the comparison between building society mortgage business before the war and during the post-war years is that, despite the greatly enlarged scale of operations, there has been no substantial change in the essential character of this business; that is to say, the societies have catered for much the same public throughout. The way is now clear to attempt to trace the wider reactions of the post-war housing problem upon the building society movement. The number of houses built in England and Wales since the war is, as already noted, approximately 2,000,000. The Ministry of Health recently estimated that of these some one-third had been built for letting and the remainder—or about two-thirds—had been built for sale. The houses built for letting were mostly erected by Local Authorities, the houses built for sale being chiefly the outcome of private enterprise. Building societies are, of course, only concerned with the latter category, numbering, say, 1,330,000 houses. The houses falling into this category were financed by various agencies. Unfortunately, there is much that is obscure with regard to the finance of housing; very little is known about some agencies, except that they exist. Building societies, however, are generally considered to have been the major factor in the provision of finance for the erection of houses by private enterprise. One of the next most important factors

consists in advances by Local Authorities under the Small Dwellings Acquisition Acts and Section 92 of the Housing Act, 1925. These Acts empower Local Authorities to make advances up to 90 per cent. of valuation on houses having a market value not exceeding £1,200 and £1,500 respectively for owner-occupation. The number of houses in respect of which advances have been made between 1919 and March 31st, 1932, is 148,000. Assuming one-quarter of these were old houses, the number of new houses thus financed is about 110,000. The present policy of the Ministry of Health is directed to discouraging Local Authorities from making actual advances, the Authorities being urged to make greater use of their powers to guarantee additional advances over and above the amount which building societies would normally advance. Public Utility Societies, which in 1930 had a combined capital of £12,500,000, have undertaken noteworthy housing operations, but most of them provide houses for renting rather than ownership. Public Utility Societies probably embrace the majority of housing schemes promoted by employers for their employees. It was recently estimated that possibly "one-third of the aggregate funds of the friendly societies (amounting to nearly £100,000,000) are invested in house mortgages." The number of new houses financed by this agency since the war is entirely a matter of guess-work, but it is probably below 100,000. Although several insurance companies have in recent years sought to popularise house purchase in combination with an endowment policy, there is no reason to suppose that this agency ranks as one of the more significant, especially as far as new houses are concerned. The banks have probably financed a certain proportion of the new houses, but the number is no doubt relatively small.

The activities of the private investor in the finance of new houses are quite incalculable, though there is no evidence which points to extensive participation. A number of the new houses were, of course, purchased for cash, but these would appear to constitute a small minority. In the circumstances, it is apparent that there is no exact information, or even fairly close estimate, regarding the relative significance of the various agencies engaged in the finance of houses erected by private enterprise. It seems probable, however, that the number for which building societies have provided finance, while not largely exceeding 1,000,000, may not be considerably short of this figure; or say approximately half the number of houses erected since the war. In any event, it is abundantly clear that building societies have played a part

of the first importance in the attempts made to solve the post-war housing problem, and that without them the measure of success which has attended these attempts would have been much reduced. As Sir Josiah Stamp has pointed out,

> "In the absence of the building society movement it is probable that in response to such pressure a large number of institutions would have sprung up to supply the need. They would have varied tremendously in their resources and their regulations, in their probity and their wisdom and foresight. New and hastily improvised structures would have been suddenly subjected to a vast and rushing flood of insistent requirements. It is fairly clear that out of such a situation must have come many failures, disappointments and losses. But, as it was, the onrush was actually made upon a system of accredited institutions with traditional practice laid down on sound lines and with all the prestige of solid and steady progress, standing ready for their task."

The question remains as to what extent the expansion in the societies' mortgage service since the war has been determined by

24304.

TABLE P.

Building Society Advances in Relation to New Houses.

Year.	New Houses.[1]	Building Society Advances (£ millions).
1902	133,000	8·9
1903	121,000	9·7
1904	127,000	9·4
1905	132,000	9·0
1906	145,000	9·2
1907	112,000	9·6
1908	101,000	8·9
1909	97,000	9·0
1910	102,000	9·3
1911	36,000	8·9
1912	92,000	8·3
1913	60,000	9·1
1924	74,000	40·5
1925	121,000	49·8
1926	135,000	52·1
1927	149,000	55·8
1928	140,000	58·6
1929	119,000	74·7
1930	146,000	88·7
1931	135,000	90·2

[1] The statistics from 1902 to 1913 show the net annual increase in the number of dwellings in England, Wales and Scotland disclosed by the reports of the Inland Revenue Commissioners: the statistics from 1924 to 1931 show the number of houses erected by private enterprise in England, Wales and Scotland.

the house-building activity which has characterised this period. Some light, if not a complete answer, is provided by Table P.

The year relating to house-building ends in March, while that relating to building society advances coincides with the calendar year. There is, of course, a time interval between the erection of a house and the completion of the building society advance, and while this arrangement of the table may somewhat exaggerate the average time interval, the conclusions suggested by the table are not materially affected. The table is not, perhaps, without a surprise element. Before the war advances were maintained in 1913 at the same level as in 1906 although the number of new houses erected was less than half that in the earlier year. Again, since 1929 the amount advanced each year has shown substantial increases, although the number of houses erected by private enterprise has been below the peak year of 1927. Apparently, building society activity on the mortgage side is much less influenced by the amount of house-building than is frequently supposed. A broad confirmation of its recent application may be obtained in another way. During the three years ended 1931 building society advances averaged £84 million, but the value of plans passed for dwelling-houses in over 140 of the principal urban areas in Great Britain (excluding L.C.C.) during the same period averaged only £43 million. These statistics may not cover all the new houses erected in Great Britain; on the other hand, they include houses built by Local Authorities, which are outside the societies' province. Furthermore, an analysis of the Abbey Road Society's advances during 1932 shows that they were almost equally divided between new properties not previously occupied and properties changing hands. These proportions, however, are subject to the qualification that the policy of the Board of Management may have operated somewhat in favour of old properties. The proportions for the two preceding years were more in favour of new properties. On the whole, it seems a reasonable assumption that during the three years ended 1931 not substantially more than one-half the sum advanced by building societies was in respect of newly-erected houses; though the proportion was probably higher during the few years immediately preceding 1929. In other words, a large part of the most recent expansion in building societies' mortgage service has been the result of a marked growth in the home-ownership movement over and above that occasioned by the occupation of newly-erected houses. The importance of this conclusion, which as yet has scarcely been recognised, need not be emphasised. Again, it

should be remembered that a much higher proportion of those who now buy new houses with the assistance of building society loans do so less under the overwhelming pressure of a chronically acute housing shortage, but more from a voluntary recognition of the merits of home-ownership. This is an encouraging development so far as the building societies are concerned and would seem to suggest that they are reaping some of the fruits of their intensive propaganda in this cause during the post-war years.

VII

The Future

What of the future? This is a question which none who have to do with housing answer willingly, mainly because housing development has never encouraged views extending beyond the ends of the noses of those primarily concerned. Yet some attempt, however hazardous it may be, must be made to form an estimate of the nearer, if not more distant, tendencies. First, as regards building by private enterprise. The recent average annual building by private enterprise is, as Table P indicates, considerably in excess of the pre-war annual average, although when allowance is made for the fact that the diminution in the later pre-war period was mainly due to political circumstances the excess is appreciably reduced; pre-war house-building was almost entirely undertaken by private enterprise. It must be recognised that over a wide area the acute housing shortage apparent immediately after the Armistice has, according to contemporary standards, been made good. As the Marley Committee on the Rent Restriction Acts found, in the case of the larger houses there is no longer any shortage; in the case of the medium-sized houses the shortage is rapidly being overcome; while in the case of working-class houses there is still considerable shortage. Expressed statistically, the Marley Committee estimated the grouping of the houses built since the war on the lines indicated in Table Q, which incorporates the Ministry of Health's estimate bringing the statistics up to date.

Thus "the supply of houses for the classes who can afford to buy, has been increased by . . . about 50 per cent.," while "the supply of accommodation available for the poorer section of the population appears to have been increased by about 10 per cent." Incidentally, classes A and B have no doubt been mainly financed by building society advances, class C being chiefly composed of houses built by Local Authorities for letting. Is there likely to

be a substantial reduction, therefore, in the rate of building by private enterprise? It is easier to draw attention to the factors in the situation than to attempt any categorical answer. In view of the existing phase of the housing problem, it is the policy of the Minister of Health to discourage house building by Local

TABLE Q.

Classification of Post-War Houses Erected in England and Wales, to September 1932.

Marley Committee's Classification.[1]	Approximate Selling Prices.	Number of Houses.
Class A . .	Over £1,300 in London and £1,000 elsewhere.	420,000
Class B . .	Between £600 and £1,300 in London and £400 and £1,000 elsewhere.	835,000
Class C . .	£600 or under in London and £400 or under elsewhere.	700,000
	Total .	1,955,000

[1] The Marley Committee's classification is in terms of rateable value; the corresponding selling prices have been estimated after a careful review of selling prices in relation to rateable value.

Authorities, except the provision of houses which can be let at low rentals within the capacity of the lower-paid working classes. Thus over a wide field of housing development private enterprise will be without competition. It is noteworthy that the Annual Report of the Ministry of Health for 1930–31 did not regard it as unreasonable to assume the continuance of building by private enterprise during the ensuing five years at much the same rate as that then obtaining.

The statistics relating to the value of plans passed for dwelling-houses continue to be maintained at high levels; and the current values, owing to the policy of the Ministry of Health in restricting Local Authorities' building programmes, reflect a higher proportion of private enterprise than was the case a few years ago. Has the geographical redistribution of the nation's industrial population entirely ceased? Has decentralisation in Greater London proceeded to its farthest limits? Recent investment developments, especially since the Conversion of 5 per cent. War Loan, combined with the Government's housing policy (including that relating to Rent Restrictions) have tended in some measure to restore property to favour as an investment; and probably this tendency will continue. Certainly house-building is now a more

economic proposition than at any time since the war; the financial conditions are favourable and building costs appear to have reached a more or less stabilised level. It is well to remember, however, that this country—in common with the rest of the world, though Britain also has its own economic problem—is passing through an economic crisis of exceptional severity. Is it possible for the crisis to continue in its present intensity for any considerable time without sooner or later influencing house-building activity in some way? In fact, taking the short view, the course of the crisis may be the most important of the influences immediately determining development undertaken by private enterprise; this especially applies to houses of higher and medium value. None the less, in view of past experience, one hesitates to be in the least dogmatic. Mr. Neville Chamberlain, who has had wide experience of the housing problem, writing a few years ago, doubted "whether these calculations (of the needs of the future) are of much value." Apart from population, "other factors, economic, local, social, traditional, come in, and any estimates which do not take account of these are apt to be upset with disconcerting abruptness." Housing represents a field so vast that all its implications and potentialities cannot easily be appreciated. Houses are a fundamental necessity of civilisation. Yet, strangely enough, housing has obviously, on a long view, been one of the least progressive elements in national life, especially in comparison with such social amenities as, say, education, transport, communications, etc. Sooner or later there may be a real awakening; and this is the more likely if the anticipations that the future will provide workers with more abundant leisure are well-founded. A measure of the extent of the field, in the financial sense, is provided by Sir Josiah Stamp's estimate that all buildings (excluding land) account for approximately one-quarter of the nation's net wealth of £18,045 million. In relation to this value building societies have advanced only £776 million since 1901—the first year for which statistics regarding advances are available.

Thus the short view has, as almost inevitably happens in housing discussions, imperceptibly transformed itself into the longer view. The building societies, none the less, may fairly plead that they have a proper sense of the realities of the existing situation. There is still, as the Marley Committee on the Rent Restriction Acts pointed out, a considerable shortage of the smaller working-class houses. The Housing Committee of the National Association of Building Societies recently published a

memorandum outlining a scheme whereby the building societies could co-operate with the Government, the Local Authorities and the private investor in providing finance for such houses. It was recognised that this type of house constituted a special problem from the building society point of view; many of these workers do not wish to buy their homes and in any case they would have difficulty in qualifying for a building society advance, especially in providing a personal stake in the property and giving evidence of ability to maintain the repayments. In short, the risk factor is much higher than in the ordinary range of building society business. The essentials of this building society scheme have been embodied in the Government's latest Housing Bill. Briefly, the Bill (Clause 2) gives the Minister of Health power to approve proposals under which Local Authorities may undertake to guarantee two-thirds of the difference between the percentage of 70 per cent. which would normally be advanced by a society and a maximum advance of 90 per cent. to a borrower who wishes to build houses for letting. The Government may undertake to reimburse the Local Authority to the extent of one-half of any loss which may be incurred, so that the additional risk will be shared equally by the State, the Local Authority and the building society. The type of house which the Bill contemplates costs rather less than £400 and can be let at about 10*s.* per week, including rates. At the time of writing the Bill has passed only through the preliminary stages of its Parliamentary career and, consequently, opinion with regard to its possibilities has not fully developed; it should not be overlooked, however, that the initiative must be taken by the private investor, and not by the building society. The building societies cannot, by their normal operations, make any direct contribution to the solution of the slum problem, but by relieving pressure on other housing accommodation they facilitate transfer of the inadequately housed wherever this is possible.

There remains the future of home-ownership—apart from new building—and this, as Table P, p. 30, indicated, has recently been notably gaining ground. The shorter view, however, hardly justifies more confident predictions than in the case of house-building. An increasing preference for home-ownership is an indubitable fact. The narrowing of the field of Rent Restriction proposed by the Government's latest Bill dealing with this matter may offer a new stimulus, but a great deal will no doubt depend upon the course of employment and real wages in the near future. Whatever the next few years may hold, building societies have

an immense field for future labours. The number of houses which are owned by their occupiers is not known with any degree of exactness. The proportion of 1 in 5 is often accepted and, although this may be unduly conservative, it is clear that there is much scope for future building society activity. The building societies, for their part, will continue their missionary efforts in preaching the merits of home-ownership. They believe their case to be a strong one. The social and political virtues of a home-owning population, as compared with a rent-paying society, are legion. Home-ownership promotes thrift where little or none may be practised, since at the end of a term of years the borrower has an asset of considerable capital value which frequently he would not have possessed otherwise, and his annual outgoings while he is acquiring his home may be little, if any, higher than if he were renting a house; it increases personal self-respect; and it encourages civic pride and adds a wholesome stability to the political institutions of the State by giving the people "a stake in the country." Building society funds are employed in increasing the country's capital resources at home in really worth-while directions; and this activity is free from the waste and misdirection which often accompanies joint-stock company finance. The building society mortgage service is not characterised by the defects which have distinguished some recent extensions of the hire-purchase system, for a house is one of the fundamental necessities of civilisation, has a long life and is reasonably stable in value. It might be urged against any widespread home-ownership movement that it would unduly restrict the mobility of labour, but to-day, when the principle of collective bargaining has been so widely accepted, this is not likely to be a serious handicap to organised labour. The exact lines along which the building societies will seek to encourage further home-ownership remain to be seen. New angles of approach will probably have to be devised to supplement the traditional methods. The movement is sometimes counselled to resort to heroic measures, such as a drastic reduction in the mortgage-rate of interest. The societies have recently reduced their interest rate for new advances by ½ per cent., with the result that the rate of 5½ per cent. is now widely current in London and the Home Counties. The societies have intimated that the position of borrowers whose advances were arranged before the autumn of 1932 will be reviewed after adequate experience of business under the changed conditions. Clearly the societies are pursuing a distinctly cautious policy, but they believe they have substantial

justification. Their responsibilities as custodians of the public's savings are too onerous to enable them lightly to undertake experiments, however socially useful they may be. The grounds on which their policy is based vary in nature and range from the legal to the financial and economic.

Thus—to indicate the grounds of policy in barest outline—the societies, on their mortgage side, are operating in the long-term loan market and their financial policy must be calculated to ensure adequate funds to finance their commitments over a period of years; in this connection, it needs to be borne in mind that, as Table F, p. 16, suggested, the societies—or a number of them—are now linked up with the organised capital market and that their rates of interest must therefore be competitive: while, on the one hand, the societies have made a general reduction in their investment rates of interest and have reduced their mortgage rate of interest only on new advances, on the other, circumstances have combined to curtail their disposable balance: under the Inland Revenue Authorities' new income-tax regulations the societies' income-tax liabilities have been increased by over 100 per cent.: the Conversion Operation and its repercussions have reduced the income available from invested surplus funds, which, owing to some slackening in mortgage business during 1932 and the probability that some of the money recently placed with the societies will be withdrawn on any considerable revival in Stock Exchange and new capital issue activity, must be maintained in substantially greater volume than is normally the case. The precise degree in which any return to normal in the money and investment markets will react on building society finance remains to be seen; this also applies to the extent to which they will need to attract new savings in the future, and to the volume in which new savings will then be available. At the time of writing most of the larger societies have applied restrictions to their investment departments; several of the larger Metropolitan institutions have restricted the additional sums which old members may invest, while new members may not open accounts except for modest amounts. A factor of the first importance in building society finance in the future will be the repayments received in connection with existing advances. As a result of the recent rapid expansion in the societies' mortgage asset, this figure now assumes considerable dimensions. The Chief Registrar, in his report for 1930, gives repayments for all societies as £57·7 million. The mean mortgage balance outstanding during that year was £292 million, so that each £1,000,000 of mortgage

asset produced an average annual repayment of £197,000. It is somewhat difficult to estimate the societies' present mortgage asset, in the absence of official statistics more recent than 1930 and owing to the rather differing experience of societies during the past year or two. Assuming a figure of £390 million, however, it is apparent that the repayments may now range between £70 and £80 million annually, which is equal to over three-quarters of the sum advanced during 1931—the peak year for which statistics are available. It is not necessary to emphasise the bearing of this factor upon building society finance, though it should be judged in relation to the other factors in the situation.

The margin of income on which building societies work is generally considered to be distinctly modest. The Chief Registrar's report for 1930 shows that the average rate of interest charged on advances—the principal revenue earning asset—was 5·82 per cent., while the average rate of interest paid on share capital—the main source of funds—was 4·65 per cent., thus leaving a margin of 1·17 per cent. From this margin the societies had to meet their management expenses, make transfers to reserve funds, etc. Under existing conditions, as a result of the revision of interest rates recently effected, the margin is doubtless rather wider than in 1930, but it can hardly be regarded as unreasonably wider in view of the new factors tending to restrict the societies' disposable balance. In any case, the societies definitely consider the present a transition stage and will be prepared to make any amendments that experience indicates to be necessary. The management expenses, broadly speaking, are certainly economical. They have varied somewhat since the war, but latterly have shown a declining tendency. The average management expenses per £1,000 of mortgages outstanding was £6·59 in 1931. In his report for 1924—when management expenses were about £1 per £1,000 of mortgages higher—the Chief Registrar remarked that, " Taking a general view the figures show that the management of building societies, as a whole, is conducted in a very economical manner." Building societies, indeed, have a long tradition of public service in which profit-making purely for their shareholders' or their own enrichment has had no part. They approximate closely to those institutions which Mr. J. M. Keynes describes in *The End of Laissez-Faire* as " socialising themselves," because " the general stability and reputation of the institution are more considered by the management than the maximum of profit for the shareholders. The shareholders must be satisfied by conventionally adequate dividends; but once this is secured, the

direct interest of the management often consists in avoiding criticism from the public and from the customers of the concern."

During the post-war years building societies have displayed great—perhaps even surprising—powers of adaptability. The future may make hardly less heavy demands upon this quality. The societies' history during the years 1918–31 strongly suggests that they may not be found wanting.

HAROLD BELLMAN

Abbey Road Building Society.

TAXATION OF CO-OPERATIVE DIVIDEND

1. The question of the assessment to income tax of the co-operative dividend on purchases has historical, legal, and economic aspects. In the first place, what was the intention of the Income Tax Acts, and the Industrial and Provident Societies Acts? Secondly, since it is a particular income tax that we have to consider, is an exemption of these dividends fair, in view of other profits which are taxed? Thirdly, what are the economics of mutual trade, when the Societies deal with a variety of products, and when they depend on an outside market of traders and employees?

A Committee of Inquiry on the subject has reported to the Chancellor of the Exchequer. It cannot be said to be a settled question in any of its aspects. The legal decision which determined the law in 1889, as well as the later case of 1927, applied to insurance societies, which are not in all respects representative of trading societies. The Inland Revenue, which had issued in 1901 and 1905 economic memoranda based on the decision of 1889, gave much less confident evidence to the Income Tax Commission of 1918, and was the appellant in the case of 1927, having endeavoured to levy tax on the surplus of mutual insurance. In a reservation to the Report of the Income Tax Commission, the economic validity of the application to co-operative dividend of the theory of mutual trading was definitely challenged by Messrs. Stamp and McClintock. The Commission as a whole reported that part of the surplus, the part put to reserve, should be taxed.

The importance of the question is not the amount of additional revenue which could be obtained by taxing the dividend. It has been estimated that co-operative Societies do about 15 per cent. of the retail trade in their goods, but their members are not a sample of income taxpayers as a whole, and the estimate given to the Commission of 1918 was that at that time the gain to the revenue would be only about £500,000, and the whole revenue about £1,000,000. It was also agreed then that, the dividend being considered exempt, the Societies paid more tax than if other profits under Schedule D were strictly assessed. The

present position is of the nature of a working compromise, which saves the revenue the expense and trouble of very numerous claims for repayment. The importance of the question is indicated by the appointment of the present Committee, and is firstly one of the attitude of private traders. There is considerable acrimony in the manner in which they have presented their case, particularly to the Departmental Committee of 1904–5. This is due partly to their opinion that, when all is said, an increasing *volume of trade* is not making its due contribution to income tax; partly to the conditions of price maintenance which are being applied to an increasing range of consumable goods, which conditions it is thought the societies do not observe, on the ground that the dividend on purchases is a concealed form of price-cutting. Again, it is important to consider what would happen to the revenue from income tax if co-operation extended to trades where the buyers would not be exempt because of the level of their individual incomes, and therefore what is happening in the transitional stage when co-operative and private trading coexist. In a co-operative commonwealth, would income tax have to be applied to the whole surplus in defence of its productivity? Or would there have to be some other tax, which would also encroach on the trading surplus? What is the reflection on existing practice of the assumption of its indefinite extension? We already have the fact that E.P.D. had to be expressly levied during the War on the purchasers' dividend. It will be relevant later to note what has been done in Russia.

2. We may first consider the intention of the Acts, or if they show any intention. My view is that up to the end of the 'eighties, the law was supposed to make individuals liable, if they were not exempt on income grounds, to be assessed on the dividend. There are two sets of Acts to consider—the special Societies' Acts, and the Income Tax Acts.

It does not seem to have been the intention of the Income Tax Acts to exempt societies generally because of their social purposes. In 1842, charitable bodies were exempted from charge as regards both investments and profits, and small Friendly Societies as regards investments only. But profits under Schedule D were in the Acts of 1842 and 1853 taxable in respect of "bodies politic, corporate or collegiate, companies, fraternities, fellowships, or societies of persons," who were to be charged with "such the like duties as any person will be chargeable with," in respect of any "Art, Mystery, Adventure, or concern carried on by them," as regards the "profits or gains arising or accruing."

There is no legal mention of mutual trading, and no legal definition of profit.

But it was under the ægis of the Friendly Societies Acts that the Industrial and Provident Societies obtained their first exemption from direct assessment. In the first special Act of 1852, and in the Income Tax Act of 1853, they are regarded as a type of Friendly Society, being such Friendly Societies as attain their objects "by carrying on or exercising *in common* any labour, trade, or handicraft," and their rules are to provide in the first instance "for allowing payments to be made from time to time to all members of the Society in respect of any work or service which they may do or perform for or on behalf of the Society." It appears to have been supposed that there was a considerable degree of mutuality in work between the members, such as did happen in the early days of co-operation. The Societies obtained in 1852 the exemption existing for Friendly Societies from direct taxation on investments, and when, in 1853, the Friendly Societies obtained exemption also as regards profits, this was by the implication of the words of the Act of 1852 extended to the Industrial and Provident Societies. Even in the second special Act of 1862, though they were no longer defined as carrying on their adventure *in common*, their exemption is not yet on their own merits, but is to be the same as that given to the Friendly Societies.

The assumptions as to the nature of the Industrial and Provident Societies changed in more than one way. While in the Act of 1876 they are still defined as carrying on any "labour, trade, or handicraft," in the Act of 1893 they are simply Societies "for carrying on any industries, businesses, or trades" specified in their rules. Again, in the Acts of 1862, 1867, and 1876, the limitation of the interest of any member is £200 in the Society or its funds, but in 1893 this applies only to the shares; and, since minors could be members since 1876, a considerable extension of investment interest was possible for a household. It has never been a matter of their legal constitution that a dividend should be paid on purchases. As long as there was a limitation in the rate of share interest to 5 per cent., something else had to be done with the surplus over that, but this limitation was removed in 1862. They must now simply have a "rule as to the application of profits."

With these changes in their nature, there appears since the Act of 1867 the clause that the exemption from assessment is not to apply to members of the Societies if they are otherwise liable.

In 1867 and 1876, the clause was in the form that it applied to members who received a portion of the profits, but the words in 1893 are that no member is "exempt from any assessment under Schedule C and D," to which he would otherwise be liable. The then ruling Income Tax Act of 1853 said that Schedule D was "in respect of the annual profits or gains arising or accruing to any person or persons whatever, from any kind of profits, or from any annuities, allowances, or stipends . . . and in respect of . . . other annual profits not changed by virtue of any of the other Schedules." Since 1842, there has been a rule of the income tax that, in estimating taxable profits, "no deduction shall be made on account of any annual interest or any annuity or other annual payment payable out of such profits or gains."

What, then, is the significance of the insertion of this clause as to personal liability? The most likely interpretation is that the growth of the Societies, and the changes in their form, caused its insertion. Indeed, there is good evidence that there was a presumption of individual liability, but that for a time nothing was done about it, on the ground of low incomes. This appears in the following ways. First, by the evidence given by Mr. Holyoake to the Committee on Co-operative Stores in 1879. He said that "they always attempted to lay income tax upon us. If the Government chose, it could levy income tax on all Societies, but our members are too poor to be responsible for it." And again: "We have no exemption except from registration fees, and we seek no exemption from general taxation. Those who are exempted are protected by the charity of the State. We intend to pay our share of the common taxation; if we can't pay, it is our misfortune, not our fault." The Society is exempt, but "if any part of the profit comes to me, I should be bound to report it." Secondly, by the fact that, while the Act of 1867 required the Societies to send lists to the revenue authorities of members to whom payments of a certain size were made, this clause was dropped in 1876, having been found useless. Thirdly, by what seems the decisive fact that the Surveyor of Taxes did assess the dividend of mutual trade in a very clear case, and succeeded in both the Queen's Bench Division and the Court of Appeal. In the House of Lords in 1889 the judgment was given against him. Of all the judges who heard this case, seven were for taxing and four against. This is the case by which the law is now interpreted.

The now ruling Act of 1893, in spite of this judgment, repeated the personal liability clause, as also did the Income Tax Act of

1918. Of course, under Schedule D, there was the possibility that profits on non-member trade and public contracts might have to be assessed, and it might be held that this explains the clause, there being something else than the dividend for it to refer to. It is also possible to interpret it as referring specially to Schedule C, since this is mentioned along with Schedule D, and there is no doubt of personal liability under C. Besides, not all Industrial and Provident Societies are co-operatives. Nevertheless, I think that the absence of an explicit exemption of *dividends to purchasers, after the decision of 1889, maintained a doubt. That decision was in an insurance case, a not unimportant limitation.*

3. This being the legal story, let us turn to the judicial interpretations. It is on them that the present exemption rests, by extension from insurance to mutual trade generally. There are four steps in the interpretation. The details are appended. In the first (*Padstow*) case, it was decided that a mutual Society is for the profit or gain of its members, as profit is understood by the Companies' Act. In the second (*Mersey*) case, it was decided that a profit depends on how it is made, not on the use to which it is put. The Mersey Docks and Harbours Board was held liable on its profits, even if they were applied in reduction of the rates of Liverpool. "The gains of a trade are that which is gained by the trading, for whatever purpose it is used. Whether it is gained for the benefit of a community or of individuals, whether the benefit is to be gained by individuals or by lightening public burdens, it is the same." In this case, the profits were largely if not mainly derived from dues levied on persons who were not rate-payers; it was non-member trading. But the principle established is important, and was followed up later. In *Last's* case, it was decided that, if a company contracts to give to a group of its customers a definite share in the profits arising solely out of their custom (reserving another share to its own shareholders), the former share is taxable as well as the latter, and is not an expense to be deducted. If a trader gives, by coupons or otherwise, a bonus to customers, that is a deductible expense. But this case decided that it must be held possible to make such a contract as one for a *share in the profits*. This was an insurance case, the receivers of the share in profits being the holders of participating policies, and the Company also did other insurance business on an ordinary basis. The beneficiaries were not as such members of the company, though their dividend arose entirely out of their own transactions with it. In one

sense, there was not mutuality, in another there was a degree of mutuality. The rule of 1842, referred to above, and the Mersey case, were applied in this judgment, which is not always thought to be good law. But it is law that definite terms of division of profit are not an expense to those who give the terms. It was not therefore surprising that in *Styles'* case, the Surveyor of Taxes charged to income tax the returns to participating policy-holders of the bonuses of an insurance society, of which they were the only members, and which had no shares. By continuity with the previous cases, the lower Courts unanimously allowed the tax, but the House of Lords disallowed it. The doctrine of mutual trade was expounded by the Law Lords, and *Last's* case was distinguished by the fact of the non-membership of the beneficiaries. When, in 1921, another Surveyor of Taxes assessed the whole surplus of another insurance Society, which also had no shares and whose members were identical with the insured, on the ground that the surplus was all put to reserve, he was defeated in all three Courts on the precedent of Styles' case.[1] But it is notable that he (that is, the Crown) took it to the Lords.

A layman can only comment on what seem to be imperfect applications of these insurance cases to trading as a whole. First, in insurance there is only one thing dealt in; as if a Co-operative Society sold nothing but tea. Then the purchaser would be receiving dividend strictly on his own purchases. And each person has only one transaction a year. The judgments appear to owe much of their force to the simplicity of the case. The fact of incorporation could then easily be, as it was, allowed to be immaterial to the "return of the over-charge." And secondly, the thing dealt in in insurance is practically beyond the control of the Society; it is the death-rate of the members. The economics of trading and management and employment are here represented only by the care with which the lives—that is, the members—are originally selected. One may doubt if this is a convincing precedent from which to argue to the turn-over of funds in trade, largely in purchases from non-member sellers, and through the extensive employment of what as such is non-member—that is, non-participating labour.

4. A word may be added on the attitude of the Inland Revenue. It issued Memoranda in 1901 and 1904, in which it confidently applied the legal decisions to the co-operative dividend. "It would be absurd to argue that, merely because the

[1] *S.W. Lancs. Coal-owners' Association Case.*

Societies, instead of realising their savings in the immediate form of low prices, choose to pay higher prices and to make a distribution of dividend, the members have added to their taxable income." "Their main object is not profit, but joint saving by members." These views were accepted by the Departmental Committee of 1904–5. But the witness of the Revenue to the Income Tax Commission spoke rather differently. "The question is one of law, and, as such, the Board are advised, in the light of decided cases, that it admits of no reasonable doubt." The chief witness on the other side was pressed with the statement that he was asking the Commission "to set aside the considered opinion of (among others) every official of the Board of Inland Revenue"; but the Board's witness went on to say that it was "perfectly clear from the Styles case that . . . the Revenue took up the position that the so-called dividends were taxable and should be taxed, but the Courts took the other view." "That," he added, "is the whole trouble that we have been faced with."[1] It was after this that the Revenue again endeavoured to assess mutual profits, in the Lancashire Coal-owners' case. E.P.D. had been expressly levied in 1915. The Income Tax Commission held the dividend to be non-taxable, except the amount put to reserve, and none of it is now taxed.

5. What we have to discuss as economists is the judgment of 1889, for the opinions then given cover the ground of the later contentions, which are often taken for granted.

First, there is the view that the dividend cannot be a profit, because the Societies can affect its amount by charging higher or lower prices. They can abolish it by selling at cost. It therefore represents the consumers' surplus of a method of doing business. Counsel for the appellant argued that "this consideration is conclusive as to its not being profit." Lord Macnaghten argued that "if a profit can be made in that way (by over-charging themselves) there is a field for profitable enterprise capable of indefinite extension," and Lord Herschell that "some fallacy must surely lurk in an argument which would lead to such a conclusion." This point was not directly taken in either of the dissenting judgments, a notable omission. Now I do not feel convinced by this line of argument. For it is impossible to say what would be the competitive reactions if the Societies were to sell at cost and without dividend. The private traders have in their evidence welcomed the suggestion, and said

[1] Qn. 18,157, 19,629, 19,683, 19,615.

that they would know how to meet it.[1] If the market met the lower prices, the dividend would disappear, and there would be no reason for dealing with a co-operative rather than with any other shop. It does not then follow that the Societies could pay an economic interest on capital and clear their books.[2] The dividend is regarded, in fact, as an essential practice for the retention of custom. Nor is it certain that they could retain the custom by selling much above the market prices; members do not restrict their purchases to the Society to which they belong. Subject to the market conditions which determine its scope, the dividend is a trade practice or device, the effect of which is to create (together with the influence of the co-operative ideal) a measure of preferential buying, and so a greater volume of sales.

Secondly, and related to this, is the view of the return of an over-charge. The arguments gave force to this by taking very simple cases. Suppose, it was said, that five men contribute £10 each for a tour the expenses of which come to only £40; is the £10 which is returned a profit? If what is implied is mere purse-bearing by one member of the party, who cannot effect the costs of a predetermined journey, the answer would be no. But if, by having £50 in hand, he is able to risk adventures which turn out fortunately, so that the whole cost is *then* only £40, it is not so clear; there has been a larger real income than in the former case. The full contribution was necessary to the enterprise and its result. I have already pointed out that insurance was not the best of precedents for a generalisation; and Lord Watson's remarks were coloured by their application to insurance. He said: "When a number of individuals contribute funds for a common purpose, such as the payment to some or all of them on the occurrence of events certain (n.b.) or uncertain, and stipulate that their contributions, so far as not required for that purpose, shall be repaid to them, I cannot conceive why they should be regarded as traders, or why the contributions returned to them should be regarded as profits." I submit that we are not dealing with so simple an operation as putting down a shilling for a tenpenny article, and getting the change quarterly in a lump sum. It is by trading with shillings that the tenpenny cost is made possible. The *ex post facto* argument was met by Lord Halsbury as follows: "If it were true that each individual did only subscribe what was supposed to be necessary to accom-

[1] Especially to the Departmental Committee of 1904–5.

[2] A golfer wins a hole with the help of a handicap stroke. It does not follow that he would have halved it without the stroke. The stroke affected the play.

plish the desired object, and that either miscalculation or something else *at the time of the original subscription* made that subscription excessive, and that the individual subscriber got back his excessive subscription and no more, or only such a sum as would make up the difference between his actual and what I will call his proper subscription, I could follow the argument. But I do not so understand the facts. The associated adventurers get their original subscriptions and something more; . . . they get their proportionate share of the good trading or fortunate adventure which has taken place during the year." In other words, as I understand it, the risks against which the insured enjoyed in the interim the security of insurance were the proper market risks, and they could not have enjoyed *that* security for lower premiums than they paid. The unknowns at the time of subscription cannot, on the analogy of the " change " in a money payment, be treated later as if they had been knowns. The subscribers were not over-charged for their security, but made a profit in the only way in which life insurance ever does make a profit, by the luck of the death-rate, if the management was competent in selecting the subscribers. Anyone who invests £5000 for an expected rate of interest of 4 per cent., and realises 5 per cent., may regard the transaction as having given him the expected income for £4000; but the way in which he looks at it does not alter the nature of the gain. He might also say that the transaction had saved him his rent. Any extra profit can, after the event, be related to the original charge as a virtual deduction. But it does not follow that, if every investor in this instance had invested only four-fifths of what he did invest, there would have been an extra profit to distribute. In the same way, the co-operative market prices created the funds whose turnover was needed for the scale of the enterprise, and for the employment of labour and management of adequate efficiency. The " return of over-charge " appears to me to be an *arbitrary* account of the facts.

This may be looked at also in the light of a distinction of old standing in the theory of taxation, between the basis, the source, and the application of resources. A tax based on income may come out of capital and be applied to either. The co-operative dividend is based on purchase prices, but it may be due to costs, and it may be applied in various ways. It need not be considered as applied to the original prices as a deduction. Suppose that it were distributed in the form of family allowances, so much for an adult and so much for a child. Its basis and source would

be the same, but it would lose its *reference* to the prices. Would it then be possible to view it in the light of the over-charge idea? We are in the habit of regarding a dividend as a proportion of something, and if not of capital, then of prices; but need it be considered as anything but a realised sum? We need not apply it to its basis at all.

Thirdly, there is the question of mutuality. This is not to be taken as that *individual* mutuality which means that the receiver of dividend relates it to his price as a deduction. Nor does it seem to be quite relevant to apply the maxim that "a man cannot trade with himself" to a Society of persons who deal entirely with each other; such a Society would, it is true, have no "in-come" from outside, and looked at as a whole it would be called entirely mutual. It is not Societies that are taxable, but individuals; to cut out the individual relations is to cut out the problem. Again, there are accidental aspects of mutuality which do not theoretically matter, such as common locality, nationality, or social class.

The question of *motive* must also be taken out of the meaning of mutuality. Three of the Law Lords made this a reinforcing idea. In the conditions of the dividend, the members "cannot be regarded as carrying on a trade or vocation *for the purpose of* earning profit." Two of them went further, and held that a mutual body did not do any trade. This interpretation had to be rejected in a later judgment, when Corporation Profits Tax was levied.[1] Mutuality must not be given any special savour; and the law does not exempt good motives, if a profit is made. A Bible Society is taxable on its profits from the sale of hymn-books. It is frequently held that the aim of co-operation is to create saving and thrift, but a person can save allowances, or profits, or anything else.

When formal association subject to law and regulations is necessary to any such enterprise, the individual who is both member and customer cannot claim exemption from profit-making on the ground that he "cannot trade with himself," unless he could escape other obligations on the ground that he cannot make a contract with or owe a debt to himself.

The Law Lords held that the identity of members and customers created mutuality, and that therefore Styles' case was different from Last's case. It was different in that aspect of mutuality. But it was similar in another aspect of mutuality—namely, that the insured persons were associated together as

[1] *Cornish Mutual Assurance Co.* (1926).

a special group with a separate account, and that by their number they made possible the gain to each in relation to the law of averages. This is what corresponds to the association of co-operators as individuals to purchase from the same shop. It is the special factor of goodwill, and it separately contributes to the gain of the organisation.

It appears that the English co-operative societies make about twice the profit on turn-over of ordinary retail trade. Mr. Neal thinks that the ordinary margin for a progressive business is about 4 per cent., and this is verified by Mr. Dobbs, who gives a rate varying for different trades between 3 and 6 per cent.[1] With the dividend, the co-operatives pay, according to the returns, about 10 per cent. They sell at market prices. Their average shop has ten times the turnover of the average independent shop, and twice that of the chain-store unit.[2] Unless their average shop requires five times the capitalisation of the latter, which is very unlikely, they must have some special source of profit to account for the difference. This is the goodwill which comes from the more or less implicit association of the members as purchasers, a special aspect of mutuality, which lessens especially the cost of advertisement.[3]

We cannot put this extra gain aside as not profit, on the ground that it does not obtain in any ordinary company. An extra gain is to be expected, due to the efforts and sacrifices of the associated members, who deliberately do not buy elsewhere. Professor Pigou put it to a witness before the Income Tax Commission that the interest on share capital and expenses of management of an ordinary firm are fully allowed for in co-operative share interest and expenses of management, and were there to tax if there were no other surplus; so that, if co-operation extended over the whole of industry, "the profit left to tax would be exactly the same as it is at present, because dividend is something over and above what the ordinary company calls profit."[4] I think that if the dividend comes from goodwill, an ordinary company would call it profit; if it is a taxable profit, there would be more to tax if co-operation spread, because the selling would have more reliable markets.

[1] Neal, *Retailing and the Public*, p. 124; Braithwaite and Dobbs, *Distribution of Consumable Goods*, p. 270.

[2] Dobbs, *op. cit.*, p. 238.

[3] Mr. Neal gives figures to show that a cash trading policy would save at least 5 per cent. of the gross margin, which is about the difference shown by the above data (10 per cent. less 4). *Op. cit.*, p. 123.

[4] Qn. 18,632–7.

This degree of mutuality may exist, and cause profit, without the other mutuality which is due to the identity of members and customers. If persons are associated as customers, they may, as in Last's case, receive the profit of that association by contract with other persons who do the management, in which case they will not receive the whole of the profit; or they may do their own management, as in Styles' case, or that of a trading co-operative Society. But the question how the management is done does not affect the nature of the gain which arises from the purchasers' mutuality. In Last's and Styles' cases that was the same. And that is the question of the special dividend. This question was not dissolved by reference to the shareholder-purchaser mutuality, for it did not depend on that. Last's case showed that it did not. It separated the two meanings of mutuality. Indeed, Lord Bramwell, who supported the Styles judgment, had pointed out in Last's case that, in order to escape liability, " as far as insurance companies are concerned, all they will have to do will be to alter their language "—and a profit will disappear! Not for economics.

The meaning of mutuality has not really been made clear, and the Law Lords were content to separate Styles' case formally from Last's, as a matter of the management of the funds. They did not explain why this separation made a difference to the meaning of profit. They tended to move over in their arguments to what is quite different, the over-charge theory. If my argument is right, the judgment in Last's case was good economics, and the maxim of the Mersey case that a profit depends on how it is made, which Last's case applied, retains its authority.[1]

There is no presumption in dealing thus as economists with the legal decisions. It has been pointed out that a majority of all the judges who heard Styles' case were for the tax. In 1927, the Crown again took the question to the House of Lords, and claimed tax on the whole surplus of another mutual assurance Society which had no shares and no outside trade.[2] It was possible for Lord Halsbury, as Lord Chancellor, to say in Styles' case that as regards the profit-making he could not see any difference from Last's case. The Inland Revenue witness to the Income Tax Commission, pressed as to the definition of mutual trade, said it was " something between trading with oneself and

[1] Since this was written, the new volume of Tax Cases carries the matter further by the remarkable decision in *Municipal Mutual Insurance Ltd.* v. *Hills*. This is appended, with comment on its bearing.

[2] *S.W. Lancs. Coal-owners' Association.*

trading with other people," and that a profit depended on how it was made "except in mutual trade." These uncertainties justify economic argument on the judgments.

Fourthly, there is another consideration which arises out of the actual administration of co-operative Societies. They are free to decide on the application of their whole profit. As a matter of custom, they pay usually 5 per cent. on share capital, and the rest to the purchasers. But they could pay only 2 per cent. on their shares, and so increase the dividend. It is therefore in their own discretion to say whether a part of their whole profit is taxable or not, so long as individuals are liable on share interest only. It is difficult to reconcile this discretion with any principle of taxation, and it would be an important resource if co-operation extended to trade between other than working-class customers.

Fifthly, the view that an organisation can only make real profit out of dealings with non-members cannot be limited to the idea of non-member *purchasers.* When the organisation is one which employs a great deal of labour which, as such, does not participate in dividends, argument is possible that on this ground the gains are profits.

Lastly, I return to what was called in the beginning the *volume of trade* argument. If co-operation were to extend generally, would the revenue from income tax not be seriously affected, so long as the purchasers' dividend was exempt? Large amounts of profit would be turned into mutual gains, by a different basis of distribution. But a change of basis of distribution is irrelevant to the real causation of profit. Yet on the theory of mutuality as established by the judgments, this change will affect the amount taxable. This was the point urged in some questions put to the co-operative witnesses before the Commission by Mrs. Knowles,[1] and answered by the statement that "our purpose is to do away with profit." It is plain that, if this went far, either a new tax would have to be imposed, like the Corporation Profits tax or a turnover tax, or income tax would have definitely to be applied by statute to the surpluses going to purchasers. The private traders always urge that a "volume of trade" is escaping taxation, but their objection only comes to anything if co-operation spreads far beyond its present boundaries. Reflection on what is happening in the interim may be obtained from the example of Russia. There the co-operatives are the public system of distribution, covering

[1] Qn. 18,871-3.

most of the field of distribution of consumable goods, and with this extension of their bounds it is found necessary to levy on their profits both a turnover tax and an income tax of 10 per cent.[1]

The achievements of working-class co-operation are in its democratic system of government and its wider distribution of profit. While I do not think it is valid to deny the fact of profit, that movement need not be concerned over the argument presented in this paper. Its members will be exempt on income grounds to such an extent that the Revenue will prefer some compromise arrangement, rather than be faced with a multitude of claims for repayment. A compounding rate of a few pence in the pound on the dividend would mean very little, since other adjustments of the present taxation under other Schedules would be necessary. It would be as well to give private traders no reason for the present acrimony. It follows, too, from my argument that the idea is mistaken which regards the dividend as a concealed form of price-cutting; while the "return of over-charge" or "rebate" theory does give colour to this idea. But, apart from the point of theory, there is the possibility of further development of the co-operative method. The Rochdale Pioneers did not intend to show how capitalists of greater personal resources could escape from income tax on profits "by altering their language."

D. H. MACGREGOR

SUMMARY OF CASES

Padstow Assurance Association :—

By the rules of a mutual marine insurance association, it was provided that all persons who effected an insurance should be members. In case of the total loss of a vessel, the members were to pay the loser the amount for which he had insured it, rateably. . . .

Held, that although the business of the association had not for its object the acquisition of gain by the association, it had for its object the acquisition of gain by the individual members.

(Chancery Cases, Vol. 20, 1882.)

Mersey Docks and Harbour Board v. *Lucas* (*Surveyor of Taxes*).

A corporation was constituted for the management of the Mersey Dock estate by an Act which provided that the moneys to be received by them from their dock dues and other sources of revenue should be applied in payment of expenses, interest upon debts, construction of works, and management of the

[1] Haensel, *Economic Policy of Soviet Russia*, p. 142.

estate; and that the surplus should be applied to a sinking fund for the extinction of the principal of the debts; and that after such extinction the rates should be reduced; and that except as aforesaid the moneys should not be applied for any other purpose whatsoever:—

Held, that under the Income Tax Acts the corporation was liable to income tax in respect of the surplus, though applicable to the above-named purpose only.

(Appeal Cases, Vol. 8, 1882.)

Last (*Surveyor of Taxes*) v. *London Assurance Corporation.*

A life insurance company issued "participating policies" at an increased premium, according to the terms of which at the end of each quinquennial period the "gross profit" of such policies were thus dealt with: two-thirds were returned by way of bonus or abatement of premiums to the holders of such policies then in force; the remaining third went to the company who bore the whole expenses of the business, the portion remaining after payment of expenses constituting the only profit available for distribution among the shareholders:—

Held, reversing the decision of the Court of Appeal, that the two-thirds returned to the policy-holders were "annual profits or gains" and assessable to income tax.

(Appeal Cases, Vol. 10, 1885.)

New York Life Insurance Company v. *Styles* (*Surveyor of Taxes*).

A life insurance company had no shares or shareholders. The only members were the holders of participating policies, each of whom was entitled to a share of the assets and liable to all losses. A calculation was made by the company of the probable death rate among the members and of the probable expenses and other liabilities, and the amount claimed for premiums from members was commensurate therewith. An account was annually taken, and the greater part of the surplus of such premiums over expenditure referable to these policies was returned to the policy-holders as bonus, either by addition to the sums insured or in reduction of future premiums. The remainder of the surplus was carried forward as funds in hand to the credit of the general body of the members. It being admitted that the income derived by the company from investments, and from all transactions with persons not members, was assessable to income tax:—

Held by four Law Lords that no part of the premium income

received under participating policies was liable to be assessed to income tax as profit or gains under Schedule D; and that *Last* v. *London Assurance Corporation* was distinguishable, the income in that case being derived from transactions with persons not members, and not (as in the present case) from mutual insurances between members only :—

Held, by the Lord Chancellor and one other Law Lord, that Last's case governed the present case, and that the surplus returned or credited to members was liable to income tax.

(Appeal Cases, Vol. 14, 1889.)

Jones v. *S. W. Lancs. Coal-owners' Association, Ltd.*

A company limited by guarantee had for its sole effective purpose the indemnity of its members in respect of fatal accidents to workmen. It was a purely mutual concern. A fund was to be established by means of ordinary calls upon the members. At the end of each year the surplus of the fund was to be carried to a reserve fund.

Held, that the surplus did not constitute profit liable to income tax.

Styles' case applied.

(Appeal Cases, 1927.)

Municipal Mutual Insurance Ltd. v. *Hills* (*Inspector of Taxes*).

This Company had no shares. Its effective control was in the hands of the fire-policy holders, who alone were entitled, in case of a winding-up, to the surplus assets. The Company undertook other forms of insurance. The surplus was applied to cumulative reductions of fire premiums, but not of other premiums. It was admitted that the surplus of the fire-policy business, being mutual, was not liable to tax, and that the surplus derived from other insurance with non-members was liable.

Held, that the surplus on other insurance than fire, done with fire-policy holders (members), did not arise from mutual insurance, and was liable.

(Tax Cases, 1932.)

(*Mutatis mutandis*, if the members of a co-operative society were defined as buyers of sugar, and the society also sold other things, but the whole surplus were divided on sugar alone, then the surplus derived from trading with the members on tea and other things would be taxable; because *quâ* buyers of tea they were not members.

This seems to reduce the question to a bare formalism which economists cannot accept.)

THE POPULATION PROBLEM IN INDIA

THE eightieth birthday of Dr. James Bonar on September 27th last is a fitting occasion for a *festschrift* article on the population problem of India. Since the publication of *Malthus and His Work* forty-seven years ago, Bonar has done more perhaps than any other living economist to interpret Malthus, who always, to use Wagner's words, " put too sharp a point on his doctrine " in order to make himself understood. " Whatever I may have said," says Malthus in the sixth (1826) edition of the Essay, " in drawing a picture *professedly* visionary, for the sake of illustration, in the practical application of my principles, I have taken man as he is, with all his imperfections on his head. And thus viewing him, and knowing that some checks to population must exist, I have not the slightest hesitation in saying that the prudential check to marriage is better than premature mortality. And in this decision I feel myself completely justified by experience." [1] Malthus is of special interest to India, as from 1805 to his death in 1834 he held the professorship of Political Economy in the East India College at Haileybury, the first professorship in that subject in England, and although his classes were ordinarily only of twelve or fourteen students, his influence during these twenty-nine years on the future administrators of India was great. " Of all the instruction which the servants of the Honourable East India Company have ever brought with them from their parent land to India," wrote Sir William H. Sleeman in his little-known work *An Analysis and Review of the Peculiar Doctrines of the Ricardo or New School of Political Economy*,[2] " that which they derived from the lectures of that truly amiable man, Dr. Malthus, on Political Economy, has been perhaps the most substantially useful to the country."

The problem of population in India to-day, indeed of Asia, is not that of the West, where from the late 'seventies or early 'eighties of last century there has been a most striking fall in birth- and mortality rates. In the West during this period of fifty years the principle of the limitation of families has been continuous, and to-day it is regarded as a highly rational social

[1] Essay, sixth edition, Vol. II, p. 463.
[2] Published in 1837 at Serampore, Bengal.

policy. We see that population can be checked by causes not connected with food. The effects of widespread and accessible education have been to change men's ideas in regard to the importance of the standard of comfort. Civilisation is the story of man's control over Nature, mainly by mechanical means. It is this control that has in the main been the cause of the decline in birth-rates. A hundred years ago in the West almost exclusive importance was given to the birth-rate, and the effect of a lowered death-rate as a factor of increase was not fully realised even by Malthus.[1] In India there has been, since registration was undertaken in the 'eighties of last century, no change in the birth-rate. The Hindu mind is deeply religious, and marriage, with all its religious ceremonies, is universal. Moreover, if we look back over the last seven decennial censuses, there is nothing to show that, in Cantillon's words, " men multiply like mice in a barn if they have unlimited means of subsistence." [2] In recent years there has been some decrease in the death-rate, as is not unexpected owing to the increased efforts to improve sanitation and prevent disease. How far do factors at work in India to-day make the problem of population different from that of Western countries?

The Census of India is a triumph of organisation, and it has attained high accuracy in the count of population. The 1931 Census covered an area of 1,800,000 square miles and dealt with a population of 353,000,000. The enumeration is synchronous, although not absolutely so. The main consideration in determining the date is that it should be as near as possible to the anniversary of the previous decennial census; that there should be moonlight between 7 p.m. and midnight when the enumerators on their rounds verify their schedules; and that fairs or festivals which would disturb the normal distribution of the population in any province should be avoided. It is almost impossible to avoid completely fairs or festivals in so wide an area as the British Empire. For India Proper census night was fixed for February 26th. On account of a festival, Burma was permitted on this occasion to hold its census two days earlier, viz. on February 24th. In some of the Himalayan districts where at the time of the census the snow is heavy the count has to be done in the preceding autumn before the heavy snowfalls occur. The district forms the main unit, and it is divided into charges

[1] Essay, sixth edition, Vol. II, p. 461.

[2] *Essai sur la Nature du Commerce in général*, Richard Cantillon. Higgs' edition (London: Macmillan & Co., 1931), pp. 82–83.

and blocks. A block consists usually of thirty or forty houses, and it is here that the enumerator, after training, makes his preliminary enumeration three weeks or a month before the census date, so that on census night he has merely to revise the entries on his schedules which he has written up for the population in the block. This enumeration is carefully prepared and checked before the census, and the immobile nature of the population makes it possible for a high standard of accuracy to be obtained. Special measures are taken to count those on trains or boats or in cantonments, hospitals, asylums, jails, etc. The Land Revenue staff and schoolmasters are used to a large extent. When the district figures are ready, they are sent to provincial headquarters, and the Census Superintendents in provinces and in Indian States in turn send their figures to the Census Commissioner. For the tabulation of results the entries in the schedules are copied by clerks on to the slips. These slips are manipulated into the various combinations required for the different tables. Owing to difficulties of coding and punching and of language (as there are 225 vernaculars exclusive of dialects, with twenty scripts, and, with the exception of three, each of these vernaculars is spoken by about 2,000,000 people, slip copying and sorting are at present cheaper than the use of machines. The mechanisation of the Indian Census is, however, as Dr. Hutton rightly says, "probably only a matter of time, and is greatly to be desired, but probably involves the creation of a permanent statistical department instead of a pitiable ephemeron, unable to put into practice the knowledge acquired from its too brief experience or to continue experiments till a satisfactory solution is obtained for its problems."

I

If the recent careful estimates of Willcox be accepted for the population of China—viz. 342,000,000—then India is now the most populous country in the world.[1] The total population is 352,837,778. British India accounts for 271,526,933, or 77 per cent., and Indian States for 81,310,845, or 23 per cent. There has been since the last decennial census, an increase of 33,895,298, or 10·6 per cent., the greatest real increase in any of the seven decennial censuses. "The most decisive mark of the prosperity of any country," said Adam Smith bluntly, "is the increase of the number of its inhabitants," a statement which would nowa-

[1] *International Migrations*, Vol. II. New York National Bureau of Economic Research, 1931, p. 42.

days not be accepted without challenge. The previous record increase was in the census of 1891, when the real increase over 1881 was 9·6 per cent. The density is 196 persons per square mile, as against 177 at the previous census, and this varies in rural areas from 1 person per square mile in parts of Baluchistan to 2000 per square mile in the thickly-populated rural parts of the south-west coast. The density in England and Wales is 685 persons per square mile, 686 in Belgium and 800 in Java. The total number of Europeans is 176,654, or the surprisingly low figure of only 0·05 per cent. of the total population of India, and of these 70,034 were British soldiers. The figure is 0·4 per cent. more than at the census of 1921, but is still 11·6 per cent. below the high-water mark of 1911 (199,776). I believe the figure to be less than 176,654, because half-castes, Anglo-Indians, not handicapped by excessive colour, have managed to get themselves classified under "Europeans" in place of Anglo-Indians, whose number is 139,895. The Census Commissioner believes that Europeans in India probably now number little more than 150,000 and Anglo-Indians 170,000. The falling off in the number of the white races in India is in part due to the collapse of the post-war boom at the 1921 census, the unparalleled trade depression at the 1931 census, and to increased Indiänisation all round. This decrease of Europeans in India is in contrast with the increase of the white races generally, which are growing at a more rapid rate than the coloured races.[1]

The first main conclusion resulting from a study of India's population is that it is wrong to believe that the population is increasing with great rapidity and that the country is overflowing with a plethora of human beings. "The principal object of the present essay," said Malthus, "is to examine the effects of one great cause intimately united with the very nature of man, which, though it has been constantly and powerfully operating since the commencement of society, has been little noticed by

[1] In the present century the increase in population has been 53 per cent. in North America (from 106,000,000 to 162,000,000) and 103 per cent. in South America (from 38,000,000 to 77,000,000). In Europe the increase has been 19 per cent. (from 401,000,000 to 478,000,000), and in Australasia 50 per cent. (from 6,000,000 to 9,000,000). In Asia the increase is 11 per cent. (from 859,000,000 to 954,000,000). In Africa the population has not really changed (1900, 141,000,000; 1929, 140,000,000). The total population of unmixed European stock is 642,000,000 (478,000,000 in Europe, 109·8 millions in North America, 30·2 millions in South America, 13·3 millions in Asia, 6·9 millions in Australasia, and 3·4 millions in Africa. Cf. *International Migrations*, Vol. II, edited by Prof. Walter F. Willcox, New York, National Bureau of Economic Research, 1931, and *Dictionary of the Social Sciences*, Vol. II, p. 564). The white stocks possess most of the valuable unpopulated areas of the globe.

the writers who have treated of this subject," and "The cause to which I allude, is the constant tendency in all animated life to increase beyond the nourishment prepared for it. . . . It may safely be pronounced, therefore, that population, when unchecked, goes on doubling itself every twenty-five years, or increases in a geometrical ratio."[1] So far as India is concerned, I believe this to be a profound error. The population of India is certainly not increasing as Malthus, the Cambridge Wrangler, expressed it, "in geometrical ratio," even when unchecked in the ordinary sense. Malthus is no doubt right in his assumption that the maximum birth-rate physiologically possible is excessive in modern conditions, that population tends—by no means an actuality—to multiply faster than subsistence, and when this is so poverty will be inevitable unless the population as a whole adopts means to restrict numbers, and without this preventive restriction there must be poverty. If man were no more than a tiger or a deer, and had no mental and moral equipment, population would be adjusted to resources as in the struggle for animal existence in the jungle. Malthus held that it was a fundamental fact that there actually is pressure against subsistence, and, mistakenly, that the supply of food beyond man's control determined the size of the population. Food, in short, in Malthusian theory explained the misery of the past, and, indeed, in his view, would explain the misery of the future.

The population of India has been of gradual growth, and it was only in the latter half of the nineteenth century, owing to increased economic development, railways, irrigation works, industries and trade, that population increased more rapidly than hitherto. In the present century, especially after the famine of 1900, population continued to increase with her economic advance until the world-wide influenza epidemics of 1918 and 1919 (which are paralleled in their severity only by the Black Death in Europe of 1349) temporarily checked this upward movement. In India the direct mortality from the disease in 1918 and 1919 was between 12,000,000 and 13,000,000, a figure nearly equal to the total estimated deaths from plague from its outbreak in 1896 to 1929. The total number of people affected by the disease was 40 per cent., or 125,000,000. The population increases, without these exceptional events, at about 8 per cent.

[1] Essay, sixth edition, pp. 2 and 6. Malthus has himself admitted the probability that having found the bow curved too much one way, he has bent it back too much in another direction, in order to straighten it. The history of civilisation undoubtedly shows that it is not time to assume that the human race tends absolutely to increase at a greater rate than the means of subsistence.

per decade according to estimates that I have recently made. The rate of growth, of course, depends on age distribution, which varies from time to time, but 8 per cent. would be the normal rate of growth provided there were no widespread calamity or exceptional unhealthiness. This is less than the actual increase in many countries, as will be seen from the following table. It is necessary to take a fairly long period, and not merely the last decennium, to compare the trends. If we take 30- and 60-year periods, the following results are obtained :—

Annual Percentage Increase in Population at Censal Periods of 60 and 30 Years.

	60 years (1871–1931).	30 years (1901–31).
India	0·69	0·66
Japan	1·62	1·33
England and Wales . . .	1·26	0·76
Italy	0·91	0·89
France	0·26	0·25
U.S.A.[1]	3·48[2]	2·05[2]
Canada	3·02	3·08
Australia	5·10	2·36

[1] Continental U.S. only. 1870, 1900, 1930.

The progress of India's population before the first census of 1872 is difficult to estimate. Indeed, there have been centuries in the history of man when births exceeded deaths and others when deaths exceeded births. I estimated India's population about 1650 at 80,000,000, and about 1750 at 130,000,000. The figure for 1850 is of the order of 190,000,000. Lieut.-Colonel W. H. Sykes, F.R.S., a distinguished statistician to the Government of Bombay, chairman of the East India Company, and one of the founders of the Royal Statistical Society, mentions, in the *Journal of the Royal Statistical Society*, 1847, that numerous writers have stated the population to be 150,000,000 souls. Dieterici and Behm, working on official data of the Statistical Bureau at the East India House, put the figure at 171,000,000. Willcox raises this to 205,000,000 by assuming (wrongly, I believe) that the rate of increase 1851–71 was equal to the average of the rates of increase of 1871–91 and 1881–1901. New areas were brought into the censuses from 1872 to 1901, and, what is very important, there was, as has been noted, an unusually large economic development brought about by the extension of railways, irrigation, commerce and industry towards the end of last century.

"The demand for men," says Adam Smith, "like that for any other commodity, necessarily regulates the production of men." In 1901 the population was 294,000,000, in 1921, 319,000,000, and, as we have seen, approximately 353,000,000 in 1931. But while in the present century the population of the United States has increased by 62 per cent., that of Italy by 27 per cent., that of England and Wales by 23 per cent., that of India has increased by about 20 per cent. France has increased hers by 7·4 per cent. It must, however, always be remembered that India is a country of universal marriage,[1] that in most instances a girl is married before reaching puberty and that practically every woman is married by twenty. As Malthus points out, a son is of first importance, "By a son a man obtains victory over all people; by a son's son he enjoys immortality; and afterwards by the son of that grandson he reaches the solar abode. Since the son delivers his father from the hell—named Puta—he was therefore called putra by Brahma himself."[2] The Muslim, too, is taught by his Prophet, "When a man marries verily he perfects half his religion." In spite of this, the rate of growth of population does not exceed that of most other countries. On the other hand, among Hindus, widows are not allowed to marry in the higher castes except in Travancore, and this is consequently a check on the growth of population. There were 7·6 millions of widows of reproductive age (15 to 40) or 12 per cent. of the total number of women in that age-group, as compared with only 2½ per cent. widows in the reproductive age-group (15 to 45) in England and Wales, and of these latter a considerable number remarry.

II

The Indian birth-rate has not decreased in the last fifty years as it has in Europe and the United States. In recent years in some provinces, such as Madras, there has been a decided upward trend as compared with the years before the War. The birth-rate in the Punjab and the Central Provinces is as high as 45 per 1000. The Indian birth-rate, therefore, stands midway between that of Europe and the United States, where it is falling, and

[1] How different is the attitude of Christianity, which Tertullian summed up thus: "Why should we long to bear children when we ourselves are longing to be removed from this wicked world?" St. Augustine believed that the city of God would be more quickly filled and the end of the world hastened if propagation stopped. Similarly, the Council of Trent, 1545–63, held that the unmarried state was even better than the married.

[2] Essay, 1826 edition, Vol. I, p. 190.

that of Japan, where it is on the increase. The annual birth- and death-rates for British India are given in the appendix. The following table summarises the movement of the birth-rate in India as compared with Western and Northern Europe and the United States. Western and Northern Europe includes Great Britain and Northern Ireland, the Irish Free State, France, Belgium, Holland, Luxemburg, Germany, the Saar territory, Finland, Norway, Sweden, Denmark, and Switzerland.

Birth-rates in India, Western and Northern Europe and the U.S.A., 1886–1930.

Period.	India.	Western and Northern Europe.	U.S.A.
1886–90	35·65	30·2	—
1891–95	34·24	29·7	—
1896–1900	36·62	29·4	—
1901–5	38·59	28·4	—
1906–10	37·88	26·6	—
1911-14	39·13	24·2	—
1915–19	35·97	17·0	—
1920–21	32·59	23·8	24·0
1922–23	33·45	21·0	22·5
1924–25	34·04	19·9	22·0
1926	34·77	19·2	20·6
1927	35·27	18·2	20·6
1928	36·79	18·3	19·8
1929	35·47	—	18·9
1930	35·99	—	18·9

The fall in the birth-rate for Western and Northern Europe as compared with the steadiness of the Indian birth-rate is very striking. The rate for Western and Northern Europe fluctuated considerably from 1750 to 1815, and then for twenty-five years after the Napoleonic wars it moved in a downward direction. For the next fifty years it was again steady, and in the late 'seventies it began to drop, until in 1887 it fell below 31, in 1905 below 28, in 1911 below 25, in 1922 below 22, and in 1927 below 19. If the fertility and mortality rates be studied in order to ascertain whether a generation is producing sufficient children to replace that generation, we find at the moment that with the present fertility and mortality rates the population of Western and Northern Europe will very slowly die out, a process which may or will be changed by a considerable change in fertility rather than in mortality.[1] In the United States

[1] Cf. Kuczynski, "Births" (*Dictionary of the Social Sciences*, New York, Macmillan, Vol. II, p. 568); *idem*, "The World's Population" (*Foreign Affairs—An American Quarterly Review*, New York, Vol. 7, October 1928).

the scanty statistics available show from 1790 to 1820 an extraordinarily high birth-rate—probably about 50—and this fell to 42 in the 'forties or 'fifties, to 38 or 37 in the 'sixties and 'seventies, and to 30 about 1900. In 1928 it did not exceed 21.

The death-rate is high, and there is consequently a large amount of waste and short average duration of human life. A low death-rate is an index of social betterment, and a high death-rate the reverse. Even if in regard to India the words of Malthus can be quoted, " From a review of the State of society in former periods, compared with the present, I should certainly say that the evils resulting from the principle of population have rather diminished than increased, even under the disadvantage of an almost total ignorance of the real cause " nevertheless we are far from " that great *vis medicatrix republicæ*, the desire of bettering our condition, and the fear of making it worse " which " has been constantly in action and has been constantly directing people into the right road." [1] The average expectation of life at birth is only about 25 years, as compared with over 54 years in Great Britain. In 1911 it was 22·59 years for males and 23·31 years for females. Mr. L. S. Vaidyanathan, F.I.A., the actuary appointed by the Government of India for the 1931 Census, has kindly furnished me with full data to show the figures of the 1921 Census for Baroda, a good random sample, 1921 figures for India not having been published, and 1931 figures not being yet available. The figures show that for Baroda in 1921 the expectation was from birth 22·4 years for males and 22·9 for females. A man and woman of fifty, for example, in Baroda have an expectation of life of only 12·5 and 13 years, as compared with 21·4 and 23·7 years respectively in England and Wales. A high birth-rate and a high death-rate usually go together, and, therefore, give a low survival rate. A high death-rate, however, does not necessarily accompany a high birth-rate, as is seen in the following table. The survival rate of Palestine is striking in this connection. In recent years in India the death-rate has been slightly decreasing, as is not unexpected in view of medical and sanitary advance.[2]

[1] Essay, sixth edition, Vol. II, pp. 440 and 433.

[2] The improvement in the death-rate is also seen in the investigations of Insurance Offices in India. " We find ourselves unable to entertain any doubt as to the beneficial effects on the Indian population of the great increase in knowledge and improvement in sanitation in matters affecting their mortality and longevity." (" Mortality of Indian Assured Lives"—L. S. Vaidyanathan, F.I.A., *Journal of the Institute of Actuaries*, Vol. LX, July, 1929, p. 190.)

Survival Rates in Different Countries. 1930.

	Birth-rate.	Death-rate.	Survival-rate.
Palestine	52·9	23·1	29·8
Egypt [1]	44·4	27·7	16·7
South Africa, Union of	26·4	9·7	16·7
Argentine [1]	30·1	13·6	16·5
Roumania	35·0	19·4	15·6
Chili	39·8	24·7	15·1
Bulgaria	30·6	15·8	14·8
Philippine Islands	35·0	20·7	14·3
Japan	32·4	18·2	14·2
Canada	24·5	11·0	13·5
Malaya	37·2	24·6	12·6
Australia	19·9	8·6	11·3
British India	36·0	26·9	9·1
U.S.A.	18·9	11·3	7·6
United Kingdom	16·8	11·7	5·1
France	18·0	16·3	1·7

[1] 1929.

Infantile mortality is still high. For 1930 the rate was 180, as compared with 60 per 1000 in England and Wales. Of the total mortality, 25 per cent. die in the first year of life, as against 10·7 per cent. in England and Wales. The deaths in the first month of life amount to a shade over 47 per cent. of the total deaths during the first year. With the present birth- and death-rates in India, the population will double in 94 years, as against 49 years in Japan and 24 years in Palestine. The "doubling" period in the case of some other countries is as follows: U.S.A., 94 years; England and Wales, 201 years; France, 274 years; Germany, 108 years; Sweden, 188 years; Switzerland, 143 years; Italy, 55 years; Canada, 53 years; and Australia, 63 years.

The torrent of infants, as in Japan, is not slowing down, and sixteen are born in India every minute, and every day adds to the population the equivalent of a town of 23,500 inhabitants. The annual births number over 8,500,000, and, as in most countries, boys considerably predominate at birth. It is not only because of the lack of education that the birth-rate is high, but also because parents, for religious and social reasons, greatly desire to have children. The religious motive usually disappears with the first son, and then the social motive that it is good to have large families predominates. It is quite true that in some cases birth-control is practised, but these are very exceptional. In the Punjab, for example, in the advanced districts, usually the irrigated wheat areas, cases are known where the principle of family limitation is adopted to avoid excessive sub-division of the land. The Sikh religion is silent on the subject of birth-control, while the Hindu Shastras definitely forbid it. As the

Sikh peasant said, "Too much rain reduces the crop; too many sons bring reproach"; and another said, "Every son comes with a share written on his forehead." Darling mentions that in a village in Gurdaspur a midwife for the last fifteen years had rendered 150 women incapable of bearing any more children. None was treated except with the husband's consent and unless there were three sons. These are exceptional. There is, however, a Neo-Malthusian League in India to-day with two Maharajas, three High Court Judges and five prominent public men as members, and the Government of Mysore State in 1930 sanctioned the establishment of birth-control clinics in four of its principal hospitals. In spite of this and the dissemination among some of the educated classes of birth-control literature, it cannot be said, with James Mill (who had nine children), that, "The grand practical problem, therefore, is to find the means of limiting the number of births." Nine-tenths of the population of India live in 500,000 villages, and have not yet been affected by this movement.

III

A characteristic of the seven censuses is the relative scarcity of women in India, a scarcity which is becoming more marked now than formerly. The proportion of women to men becomes less as one proceeds from the south and east to the north and west of India. In the 1931 Census there were 182,000,000 males and only 171,000,000 females, an excess of 11,000,000 males, or 6 per cent. This is in contrast with most countries in Europe, but not with countries in Asia, North America, Australia and South Africa. The following table gives the sex proportion.

Sex Distribution.

	Number of females per 100 males.					
	1881.	1891.	1901.	1911.	1921.	1931.
Bombay (including Sind)	94	94	95	93	92	90
Bengal	99	97	96	95	93	92
Madras	102	102	103	103	103	102
Bihar and Orissa	102	104	105	104	103	101
Central Provinces and Berar	97	99	102	101	100	100
United Provinces	93	93	94	92	91	90
Punjab	84	85	85	82	83	83
North-West Frontier	82	84	85	86	83	84
Baluchistan	—	—	—	79	73	72
All India	95	96	96	95	95	94

The number of females per 100 males according to religion is of interest, as Sikhs and Muslims have a low percentage of females to males. The figures of the 1931 Census in this respect are similar to those of previous censuses, and are for Hindus 95 as compared with 100 males; 95 for Christians; 94 for Jains and Parsis; 90 for Mohammedans, and only 79 for Sikhs. The average for all religions is 94. If the castes which have a tradition of female infanticide be compared with those which have not, the results in some parts of India to-day show, in the words of the 1921 Census Report, "the continued deliberate destruction of female infant life either by active or by passive means." In India sons are longed for, while daughters are not, especially among communities, such as the higher Rajput clans, where considerable sums have to be paid for obtaining suitable husbands and marriage costs are excessive, and among those, like the Pathans, which despise women and deride the fathers of daughters. In Baluchistan to-day there is the well-known euphemistic statement that "the lady's daughter died drinking milk." Similarly, in Gujarat there is an expression "Dudhpiti Karvi," which means the same thing—the drowning of the newly-born girl baby in milk. Among Rajputs a century ago infanticide was not uncommon. A pill of bhang might be given to the new-born child, or it was drowned in milk, or the mother's breast was smeared with opium or the juice of the poisonous dhatura. A common method was to cover the child's mouth with a plaster of cowdung before it drew breath. In 1853 Lord Lawrence held a Durbar at Amritsar, where the chiefs residing in the Punjab and the trans-Sutlej States signed an agreement to expel from caste everyone who committed infanticide and to adopt fixed and moderate rates of marriage expenses. The Act of 1870 is still on the Statute-Book. The object is stated to be "to prevent the murder of female infants," and the preamble reads, "Whereas the murder of female infants is believed to be commonly committed in certain parts of British India, etc." The Act applies to the Bombay Presidency, the United Provinces, the Punjab and to certain scheduled districts and applies, for example, to certain classes of persons in the Ahmedabad and Kaira districts of Gujarat. Dewan Bahadur K. H. Dhruva, the Gujarat scholar, tells me that female infanticide in Gujarat was practised by Rajputs and Kunbis, but that since legislation was passed, and with the progress of recent years, the practice has decreased. Miss Mayo, in her book *The Slaves of the Gods*, has a tale called "The Hedge of Thorns," a narrative which she says is from real

life. It is a story of the burying of girl babies in a village in a long hedge of thorns, ostensibly in the Punjab. Infanticide in India has always been female infanticide, except in the case of widows who, to prevent social obloquy, if they have a child, male or female, must get rid of it. It is difficult to gauge the extent of female infanticide at the present time. There are undoubtedly other factors at work, all traceable to the neglect of female infant life. A female child in the struggle for life is at a disadvantage as compared with the male. "There is," says the 1911 Census Report for India, "the deliberate neglect with the object of causing death, which is practically infanticide in a more cruel form; and there is the half-unconscious neglect, due partly to habit and partly to the parents' great solicitude for their sons. The boys are better clad and when ill are more carefully tended."[1] There are other causes militating against women in India, such as early marriage, antediluvian methods of midwifery and the treatment of widows as drudges, especially those who have lost their husbands when young, as this is regarded in Hindu society as the result of the wife's sins in a previous life. Infanticide is not a sign of backwardness or of a low civilisation, as it was practised by the Phœnicians, Babylonians, Egyptians, Greeks and Romans. We have to remember that (1) among those groups where infanticide is practised the custom is ancient and the Indian is notoriously conservative in his traditions; (2) the ease with which, under the conditions of childbirth in an Indian family, the practice can be carried out without the possibility of any definite suspicion in any individual case such as would justify official interference; and (3) the fact that the registration of births is not universal and is not kept by the caste. The suppression of female births is a well-known fact in the Punjab, as pointed out by the Census Commissioner in his Report of 1921. Willcox describes female infanticide in China, where, as in India, females are less in proportion to males.[2] He gives the number of females as 44 per cent. of the population and in India the percentage is 48. The social actions of men do indeed produce the most profound disturbance in sex proportion. The low proportion of females is certainly not due to the omission of women at Census time, and, as the Census Report points out, "every indication is adverse to the theory of the omission of females in the enumeration."[3] It is interesting to note that,

[1] Census of India, 1911, Vol. I, Chap. VI, p. 218.

[2] *International Migrations*, Vol. II, p. 37.

[3] Cf. Census of India, 1921, Vol. I, Chap. VI, pp. 140 and 146 (Calcutta Government Printing Office, India, 1924).

except in the ages " 0 to 4 " and " 60 and over," there is a relative scarcity of females in all groups except in the group 25 to 30, and this scarcity is very marked in the age-group 10 to 14. This has been noticed in all censuses. The excess of women in the age-group 25 to 30 is explained by the fact that there is an over-statement of age among Indian women after marriage and an under-statement before marriage. The number of women returning themselves as from 25 to 30 in the 1921 Census—the 1931 figures are not yet available—was greater than the number of girls 15 to 20 years of age ten years previously, although they were only the survivors of the latter after a lapse of ten years. They should have been of necessity fewer in number.

IV

Recent writers on the population problem of India have, like Malthus, been obsessed by the supply of food, and have failed really to examine whether there are not other important factors making for economic progress and economic stability, and modifying the supply of population. There are many symptoms which certainly do not point to over-population. Cultivators, as the recent slump has shown, have had difficulty in selling their produce, and the ability of the country to feed its population is considerable. Sixty-five per cent. of the area is available for cultivation, but the net area actually sown with crops during 1928–29 was only 34 per cent. of the area available. If one has seen the results of irrigation in the Punjab, where three or four decades ago there was desert, and where to-day there are wheat-fields with miles of canals, one realises how unduly the English classical economists exaggerated that land was limited, that the best quality of land is cultivated first, and that the law of diminishing returns in agriculture early comes into operation. The Sukkur Barrage, which will provide a perennial supply of water to an area of 1,850,000 acres, hitherto inadequately served by inundation canals, will irrigate an additional 3,325,000 acres. The Sutlej Valley Projects in the Punjab will irrigate over 5,000,000 acres, of which 3,750,000 acres will be land hitherto desert waste. The unusual increase in population of Bikaner since the 1921 Census, an increase of 42 per cent., is accounted for by the increased areas available for cultivation under the recent schemes of irrigation undertaken by that State. Not only is the area extending, but the results of better seed and better farming are not

without their results on production, in spite of the religious prejudice to bone and natural manures and the antipathy to keeping Nature in her place in the animal world. "Pusa 12" and "Pusa 4" have now become the standard types of wheat in the United Provinces, the Central Provinces and Sind. In the United Provinces and Central Provinces about 1,600,000 and 660,000 acres respectively are sown with improved types, chiefly of Pusa varieties. In cotton the total acreage under improved varieties is now over 4,000,000 out of an area of 26,000,000. If animal husbandry were properly taken in hand, the production of milk would not only be greatly increased, but the wealth and welfare of the community would also be immeasurably extended. Vicious circles would be broken. As Virgil would say, *Viresque adquirit eundo.* There are in India no limits to agricultural improvement with the advance of science.

Secondly, population has increased less rapidly than production, which, especially since the War, has shown a decidedly upward trend. Production, of course, is made to meet the consumption of a people according to their standard of living, and this, of course, involves much more than mere food. To give the entire data would mean a long ramble through rough country, and would involve a mass of statistics that would bewilder the inquirer and even distract him from the broad facts that have to be understood. The main facts are summed up in the following tables.

Growth of Population and Production

(Quinquennial Averages.)

	1900–1 to 1904–5.	1910–11 to 1914–15.	1920–21 to 1924–25.	1926–27 to 1930–31.
Population [1] . . .	100	107	108	120
Production :				
1. Area under crops—				
Unweighted . .	100	124	119	132
Weighted . .	100	131	134	150
2. Outturn—				
Unweighted . .	100	129	125	137
Weighted . .	100	134	137	141

[1] The figures refer to the censuses of 1901, 1911, 1921 and 1931.

Two things may be noted here—the "efficiency" of any given aggregate of food has been very greatly enhanced with the development of communications; the statistical study of food production cannot stand alone, owing to its incomplete

character, and all the items of the national income must be included.[1]

If, in remembering Quesnay's dictum that "one should aim less at augmenting the population than at increasing the national income," we take the growth of national income and allow for the change in prices, we get the following :—

Year.	Population.	Per capita National Income.
1871	100	100
1881	123	130
1901	142	123 [2]
1911	153	270
1921	156	230
1931	171	273 [3]

[2] Severe famine 1900. 1929–30.

The growing consumption of simple luxuries, the import from foreign countries of £400,000,000 in gold and £355,000,000 in silver since the beginning of the century, and the way in which the peasantry has withstood scarcity, famine and the catastrophic fall in the prices of primary products, are further factors that do not suggest a relatively excessive population. The tragedy, however, of the problem of population is that if population grows up to its full resources, the masses are poor; if, on the other hand, like France, it stops very far short of them, there is the standing temptation given to a more populous race or nation to overrun and subdue it. Thus the number of children for every 1000 women of reproductive age in India is 109, as compared with 156 in Japan, 73 in England and Wales, and 77 in Germany, and only 72 in France.

Thirdly, there is ample scope for more diversified industry, which would add greatly to the national income, and if only education were more widespread, the low standard of comfort that exists would certainly be increased. Writers on the problem of Indian population are apt to commit the same error as Malthus, who confined himself too much to the relative increase of population and food, neglecting even in the Third Book of his Essay the necessary emphasis on the productiveness of industry. Cannan's timely reminder before the British Associa-

[1] Cf. Bonar—*Malthus and His Work*, p. 123. "To ascertain whether a population is safely under the level of its food, tending to pass beyond it, or simply rising up to it and to ascertain by what ways and means the process is going on, we need instead of one single general criterion a whole array of particular tests. It is in the infancy of statistical science that men yield to appearances and 'suppose a greater uniformity in things than is actually found there.'"

tion in 1931 is as important to us as to the West. "The old proverb 'With every mouth God sends a pair of hands' is true and valuable, but no more than its converse 'With every pair of hands God sends a mouth.' The demand for the products of industry is not something outside and independent of the amount of products. The demand for each product depends on the supply of products offered in exchange for it, and the demand for all products depends on the supply of all products. Consequently, there is not the slightest danger of the working population ever becoming too great for the demand of its products taken as a whole." [1]

To sum up. The will to have a higher standard of living is, generally speaking, not a force in India to-day. Until this comes about there will be no great change in the outlook on the population problem. India's attitude is fatalistic like that of a prominent Japanese Statesman who recently declared "Japan is not over-populated. We still have undeveloped land in Hokkaido and Kyushu. When these places are filled with settlers, it will be time to talk of over-population. I do not like the idea of birth control. It is God's will that children should come." Probably mass education will, more than anything else, raise the standard of comfort, but for a population of 353,000,000 this will be financially and ethically a difficult problem. In the West it is volition that controls the increase of population and to a less and less degree the food supply. As Bonar said to me recently, "Malthus will be little heard of, because he has really done his work. People attend to numbers and the standard of living now in a way only France did before. Now I suppose we are all Frenchmen, as in the matter of circulation we all are Scotsmen living on pound notes and reading of gold in newspapers."

G. FINDLAY SHIRRAS

[1] ECONOMIC JOURNAL, Vol. XLI, 1931, p. 530.

Appendix

Birth- and Death-Rates in British India, 1885–1930.

(Per 1000 of the population.)

Year.	Birth-rate.	Death-rate.	Year.	Birth-rate.	Death-rate.
1885	36·74	26·37	1908	37·78	38·21
1886	34·97	25·51	1909	36·65	30·91
1887	35·92	22·88	1910	39·52	33·20
1888	35·59	25·92	1911	38·58	32·01
1889	35·30	28·21	1912	38·95	29·71
1890	36·47	30·15	1913	39·37	28·72
1891	35·05	28·52	1914	39·61	30·00
1892	31·54	32·49	1915	37·82	29·94
1893	35·15	25·75	1916	37·13	29·10
1894	34·91	33·97	1917	39·33	32·72
1895	34·57	28·94	1918	35·35	62·46
1896	36·06	32·04	1919	30·24	35·87
1897	33·98	36·03	1920	32·98	30·84
1898	34·33	26·61	1921	32·20	30·59
1899	42·16	29·94	1922	31·85	24·02
1900	36·58	38·60	1923	35·06	25·00
1901	34·60	29·46	1924	34·44	28·49
1902	39·38	31·49	1925	33·65	24·72
1903	38·96	34·70	1926	34·77	26·76
1904	40·86	32·86	1927	35·27	24·89
1905	39·13	35·96	1928	36·79	25·59
1906	37·80	34·73	1929	35·47	25·95
1907	37·65	37·18	1930	35·99	26·85

Birth- and Death-rates in British India, 1885–1930.

(*Index Numbers*)

(1885–94 = 100.)

Year.	Birth-rate.	Death-rate.	Year.	Birth-rate.	Death-rate.
1885	104	95	1908	108	137
1886	99	91	1909	104	111
1887	102	81	1910	112	119
1888	102	92	1911	110	115
1889	100	102	1912	111	106
1890	101	107	1913	112	103
1891	100	102	1914	113	107
1892	90	116	1915	108	107
1893	100	92	1916	106	104
1894	99	121	1917	112	107
1895	98	103	1918	101	223
1896	103	115	1919	86	128
1897	97	129	1920	94	111
1898	98	95	1921	92	109
1899	120	107	1922	91	86
1900	104	142	1923	100	89
1901	98	105	1924	98	102
1902	112	113	1925	96	89
1903	111	124	1926	99	95
1904	116	117	1927	100	89
1905	111	128	1928	105	91
1906	108	124	1929	101	92
1907	107	133	1930	102	96

Source: Official publications of the Department of Commercial Intelligence and Statistics, India, and of the Public Health Commissioner with the Government of India.

THE NATIONAL INCOME OF THE POPULATION OF THE IRISH FREE STATE IN 1926

THE material available for attempting to calculate the national income of the Irish Free State includes two Censuses of industrial production, taken for 1926 and 1929; the Agricultural Output estimated for 1926; the Census of Population of the 18th of April, 1926 (with special reference to the statistics of Occupations and of Industries); and the Annual Reports of the Revenue Commissioners. In the choice of a year one is driven to 1926; and this year may well be a starting-point for comparison with later years when complete Censuses of Production are published.

The national income which is about to be measured is built up by adding together the incomes of all individuals residing in the Irish Free State in 1926, together with the undistributed incomes of companies in that year; but on account of the special nature of agriculture and the weight of this industry in the Irish Free State national income, I propose to include the retail value of farm produce consumed by farmers from their farms.

The population of the Irish Free State in 1926 was 2,971,992 persons, and of this number 44·0 per cent., or 1,308,000 persons, were "gainfully occupied." 672,129 of these were engaged in agriculture, 51·4 per cent. of the occupied population. 1,223,014 persons were at work on the date of the Census, 9,789 persons being then in hospitals, etc., and 3,212 temporarily unemployed. Of those at work, 648,575 were employed in agriculture. The net output from agriculture in 1926 was £56¼ million at farmers' (*i.e.* producers') prices. Part of this output was consumed by those who produced it and by their dependents. Valuing this part at retail prices, the value of the net output was officially estimated at £67¾ million (*The Agricultural Output of Saorstat Eireann*, 1926–27, P. No. 132, 1930, p. 12).

It is important to understand what this figure of net output represents. It is derived from the gross output. The gross output is " that portion of total production which is sold off farms or which is consumed in farm households together with increases in stock between the beginning and end of the year of inquiry " (*The Agricultural Output*, pp. 4–5). From it, in order to reach the net output, the values of animal feed, fertilisers, and seeds

purchased from merchants are deducted. From the net output figure it is possible to estimate the agricultural income by deducting rents, bank interest, cost of tools, blacksmiths' charges and wages. Animal feed (£6,559,000), fertilisers (£1,301,000) and seeds (£689,000) amounted in the official estimate to £8½ million. The figures in brackets are the estimated amounts at retail prices paid by the farmers of the Irish Free State as a body and not including inter-farm commerce in these requirements. This amount of £8½ million has been deducted from the gross output in reaching the figure of net output £67¾ million. The purchase by farmers of tools and machinery was also estimated officially, the amount being £1½ million. Land Purchase Annuities amounted to £3½ million and, of this, about £3 million may be taken as the rent or interest payment. Rent on unpurchased land was approximately £1½ million. Bank interest is a proper deduction and the amount paid by farmers was between £1,200,000 and £1,500,000, representing an aggregate indebtedness of from £20 million to £25 million. Rates on agricultural land amounted to £2¼ million. The total of these deductions is £9½ million; so that the agricultural income enjoyed by farmers and agricultural employees was £58¼ million. Beside this figure, the "Actual Income" brought into assessment under Schedule B of the Income Tax Acts, £1,284,100, indicates the uselessness of the Income Tax statistics in computing Irish income from the occupation of land.

Turning to ownership, the Schedule A assessments made in 1923–24 were £10,924,000 for lands and houses. This figure included exempt cases which are omitted from the totals of subsequent years. The 1924–25 assessments fell on this account to £6,101,200. For the present purpose, the 1923–24 assessments may be used and it will then be unnecessary later, in considering the incomes of persons who are not reached by the Income Tax, to add any income from the ownership of lands and houses.

The Schedule A assessments on lands, including farm houses, farm buildings, etc., were £7,642,100 in 1923–24. Deducting £850,000 for repairs, as in the Revenue Commissioners' Report, the net was £6,792,000. Rents and the interest part of the Land Purchase Annuities amounted to £4,500,000. The excess of the Schedule A assessments over this amount, £2,292,000, is deductible from the agricultural income in order to keep separate the income from occupation and that from ownership. To it the rents are added to give the income from ownership. The result is:

Income from occupation	£56 million.
Income from ownership (£2¼ + 1½ million) .	£3¾ ,,

Little comment is called for in regard to the reliability of the figure of £6,792,000. It is the aggregate of the Poor Rate Valuations less an official allowance for repairs, which is about one-ninth of the valuations; and there can be no evasion in the gross, whatever may happen to the net charges, with which one is not now concerned. The only criticism against the figure is that the Poor Rate Valuation is not uniformly either in point of time or place a true equivalent of the letting value of property in the Irish Free State. Dealing with this objection first as regards land, it is to be observed that practically all the land of the country is occupied by the owners, subject to their Land Commission charges. The income to them from ownership is an enjoyment, not an actual money, income. Since the Schedule B assessments have been discarded as a measure of farming income, in favour of the information given by the Agricultural Output Report, the adequacy of the Poor Rate Valuation as a measure of ownership income is of little moment. The procedure adopted makes it wiser to rely on the total of occupational and ownership income than on the separate figures for each. The question of the under-valuation of urban property will be considered in its place.

There are in the Income Tax statistics certain miscellaneous discharges from the assessments described in the Revenue Commissioners' Annual Reports as "Other Reductions and Discharges." These comprise (*a*) reductions in the gross assessment; (*b*) Bank Interest; (*c*) Cancellation of gross assessment on the ground that a covering assessment has been made elsewhere; (*d*) Losses in the year of assessment, or even in previous years, set off under Section 34 of the Income Tax Act, 1918, against the gross assessment; (*e*) Allowances not granted in the body of the assessment book and afterwards made "by discharge"; (*f*) Double Taxation relief (important in the years 1923–24—1925–26).

The "reductions" for 1926–27 and later years are more reliable than the earlier figures, which carried an unusually heavy proportion of discharges. It is not possible to segregate these "Other Reductions" into their six categories. In order to arrive at a true figure of gross income it would be necessary to deduct all except (*e*) and a proportion of (*d*). The discharges from the 1923–24 Schedule A assessments amounted to £2,219,200; and in 1926–27 to £2,084,900. A big proportion fell under heading (*e*). It is on the safe side to deduct about £½ million from Schedule A assessments on lands and farm-houses and the same amount from Schedule A assessments on other houses and tenements.

The total income of the agricultural population from farming,

and including owners who are not occupiers but excluding holders of stock issued under the Land Acts, becomes therefore £59¼ million.

The gross income, Schedule A, from non-farm property was £3,281,700 in the 1923–24 assessments and £3,411,800 in 1926–27. Deducting the £½ million already referred to, and the official allowance of £200,000 for repairs, which is about one-seventeenth of the gross, the actual income is estimated at £2,700,000.

In the Irish Free State, owing to the absence of periodical revaluations, it is inevitable that there should have been considerable differences between the Poor Rate Valuations and the letting values, especially during the changing values of the past twenty years. The Irish Free State valuations are still based on an eighty-year old valuation with the exception of the cities of Dublin (revalued 1913) and Waterford (revalued 1924). The Rent Restrictions Acts prevent the owners of such property as is affected by the Acts from increasing rents beyond 130 per cent. of the 1913 rents, thus transferring to the tenants a beneficial ownership income. In 1926 the valuations were more out of relation to letting value than they are to-day. It has been noticed that the official allowance for repairs is in the 1926–27 figures only one-seventeenth (5·86 per cent.) of the gross value. The statutory allowance is one-sixth; but when the valuation is more than one-sixth below the rent, no allowance is made. At one-sixth the repairs allowance would have been £570,000 instead of £200,000. The repairs allowances granted were 35 per cent. of what would have been granted if all rents exceeded the valuations by not more than one-sixth of the rents. It is taken, then, that 65 per cent. of the property assessed were paying rents more than one-sixth above the valuations.[1] How much more than one-sixth of rents were the valuations below the rents? I think one might say 50 per cent. at a conservative estimate, and 15 per cent. for the remaining 35 per cent. This gives £3,412,000 $(0{\cdot}65 \times 0{\cdot}5 + 0{\cdot}35 \times 0{\cdot}15)$, or £11¼ million, as the gross. Making the allowances referred to in the preceding paragraph, the income is £10½ million.

It is proposed to use the estimates of Central Government expenditure in combination with the Revenue Commissioners' Reports, the Census of Population Reports (Volumes II, VI and VII), and the Census of Production, 1926, Reports, to obtain the income from salaries, wages and profits.

The Revenue Commissioners' Reports show that the "actual

[1] See *British Incomes and Property* (Stamp), p. 160.

income " under Schedule E amounted in 1923–24 to £20,515,100; and in the 1926–27 assessments to £21,418,000.

The Estimates show that the total amount of salaries and wages paid by the central government in 1926–27 was about £12 million; and from a careful analysis of the items it appears that this may be divided as follows :—

Paid to persons liable to Income Tax	£7,500,000
Paid to persons exempt from Income Tax	£4,500,000

Those not liable to Income Tax numbered about 34,000; those liable about 28,500. From the Estimates for 1926–27, each entry has been examined, and those under the Income Tax exempt limit have been extracted. The total number so obtained was 29,852 with aggregate basic salaries of £2,400,000 and cost-of-living bonuses of £1,900,000, a total of £4,300,000. National teachers are not included. From the Annual Report for 1926–27 of the Department of Education, it appears that 1,836 Junior Assistant Mistresses received £232,000; and 2,169 pensioned teachers received £189,000. These additions bring the number of incomes to 33,857 and the amount to £4,700,000. The following additions of " exempt " income have then to be made :

	£
Payments by Government to volunteer crews (758)	2,000
Rations of soldiers	390,000
Clothing of ditto	102,000
Additional army pay to men for trade work, etc.	94,000
Marriage allowances to soldiers	137,000
Payments to Army Reserve	50,000
	£775,000

We may therefore place aside as part of the national income £5½ million; and proceed to analyse the Schedule E assessments. The number of Government employees in these was 28,700 with an income of £7,700,000.

Volume VII of the Census of Population (Industrial Groups) classifies the population at work at the date of the 1926 Census in eleven broad groups (Table A).

There are 158,841 persons in Classes III and IV. The Census of Production for 1926 gave the salaries of 14,077 persons (£2,808,403) and the wages of 93,323 (£11,467,000); accounting for 107,400 persons. These are all in Classes III and IV. The remainder (51,500) fall into the following categories :—Small dressmakers (8,500), jobbing carpenters (9,500), small bootmakers (5,000), blacksmiths (4,500), tailors (7,000), bakers (3,000), makers of drinks (2,000), saddlers (1,000), motor mechanics (2,000), painters and plumbers (2,500), labourers (6,500).

TABLE A.

Class		Males.	Females.	Total.
I.	Agriculture	526,494	122,081	648,575
II.	Fishing	5,510	23	5,533
III.	Mining and Quarrying	1,683	21	1,704
IV.	Manufactures	125,269	31,868	157,137
V.	Transport and Communication	37,709	1,181	38,890
VI.	Commerce and Finance	79,926	34,311	114,237
VII.	Public Administration and Defence	56,348	19,798	76,146
VIII.	Professions	20,714	18,209	38,923
IX.	Personal Service	28,826	99,130	127,956
X.	Entertainments and Sport	3,672	1,114	4,786
XI.	Miscellaneous	7,459	1,668	9,127
	Total	893,610	329,404	1,223,014

Already enumerated
I. 648,575
VII. 62,500

	711,075
Number of incomes remaining	511,939

The average of the wages in the Census of Production is £123 a year, but excluding wages above the Income Tax exempt limit the average is much lower. In "Construction and Repair of Vehicles" the average wage was £220. At the other extreme, in the Linen, Cotton, Hemp and Jute industries, the average was £61. For wage-earners under the Income Tax exemption limit the wage paid to the largest numbers of workers was £98; and this may be reduced by £3 for holidays, casual work, sickness and unemployment, remembering that an allowance is already made as between the figures in the Census of Occupations and in the Census of Industries.

From the wage-earners in the Census of Production (93,323) about 33,000 may be transferred to the section of the population liable to Income Tax at an average income of £200, thus reducing the total of wage-earners to 60,500, and their earnings to £5,750,000.

We thus get the following division :

	Numbers.	Income.
In Schedule E assessments	33,000	£6,600,000
Outside Schedule E assessments	60,500	5,750,000
	51,500	5,050,000

On the other hand, it is necessary to transfer some of the 14,077 salaried persons to the non-Income Tax class. In this total there are 510 typists and 1,564 woman clerks (Census of Population, Volume VII). A transfer of 2,000 persons at an average of £120 each reduces the salaried class to 12,000 persons with an aggregate

income of £2,500,000; and increases the wage-earners (outside Income Tax assessments) by 2,000 with an aggregate income of £240,000.

The number of incomes in Schedule E now accounted for is therefore 28,500 + 12,000 + 30,000 to 33,000 making in all,

say	74,000	
Add Teachers . .	11,500	
Central Fund salaries	43	
Total number of Schedule E assessments	85,543	
with actual income of . .		£21,400,000
To the Schedule E actual income *add* for clothing, rations and lodging allowances of Army officers		81,000
		£21,481,000
Deduct non-residents assessed to Income Tax (*i.e.* Irish Free State representatives abroad) 20 persons at .		10,000
Total		£21,471,000

The Schedule E actual income (1926–27 assessments) was £21½ million. Treating £8 million (Civil Servants) and £2½ million (manufactures) as included, the amount left over is £11 million (28,500 + 12,000 = 40,500 persons). By Section 18 of the Finance Act, 1922, all employments are assessable under Schedule E. From an examination of each group in the Census of Population (Volume VII, Table 10) the following may be classed as within the Schedule E assessments :

ass	II.	Fishing	20
,,	III.	Mining	100
,,	V.	Manufactures	5,300
,,	VI.	Transport	16,000
,,	VII.	Public Administration	2,800
,,	VIII.	Professions	3,000
,,	IX.	Personal Service	2,100
,,	X.	Entertainments	1,200
,,	XI.	Miscellaneous	1,500
		Total	32,020

This figure (32,020) has been reached independently of the figure of 33,000 from the Census of Production.

Pensions paid by the Irish Free State Government to army, police and civil officers, included in the Income Tax assessments, amounted in 1926 to about £200,000 (750 pensioners). In addition a sum of about £510,000 was paid to "exempt" persons (6,000) and £21,000 in widows' allowances. This total (£510,000 + £21,000) falls to be included in the national income. The £200,000 above is already in the Schedule E assessments.

To summarise at this stage, we have got an income of £59¼ million from ownership and occupation of land and farmhouses;

£10½ million from the ownership of non-agricultural land and buildings; £21½ million under Schedule E representing the incomes of 84,000 persons; £16¼ million for 146,688 employees under the Income Tax exemption limit; and £¾ million from pensions. This gives £108¼ million and leaves 344,731 incomes still to be estimated.

These 344,731 incomes are divided between those which are in or which ought to be in the Schedule D assessments, and wage-earners under the Income Tax exemption limit.

Approaching the matter from the Income Tax end, the Schedule D "actual income" in 1923–24 was £21,168,000; in 1926–27 £25,550,500; and in 1927–28 £23,627,900. Charities (exempted) bring the 1927–28 (1926–27 assessments) total a little over £24,000,000. This includes industrial and commercial profits, professional incomes, interest received without deduction of Income Tax and dividends from outside the Irish Free State. Evasion of Income Tax in the Irish Free State in 1926–27 is not believed to have been considerable. Irish incomes from abroad are mainly from English companies and the check here is evasion-tight, leading, if anything, to over-payment by careless or ignorant taxpayers. The large-scale type of evasion, through the machinery of foreign bank accounts, is probably non-existent. Since Schedule B has been discarded as a measure of agricultural income, and Schedules A and E are not easily avoided, the bulk of evasion would fall under Schedule D; and whatever this may have been in earlier years the scope for evasion was considerably reduced by 1926–27. Small shopkeepers would have contributed by under-assessment, but the aggregate amount would not appreciably affect the total of national income. It is proposed to estimate the amount at 4 per cent. of Schedules C and D combined, or £1,000,000.

There is, thus, an addition of £25 million to the national income, but it is necessary to make an estimate of the number of incomes included. The Census of Industrial Production (1926) gave a "net output" for all industries of £9,913,769 after payment of salaries and wages, the salaried persons including proprietors working in the industries. "Net Output" is by no means identical with "income," but the information given by the Census of Production is not to be ignored. As it is reasonable to assume that stocks were being reduced in 1926 and that profits were less than in 1924 and 1925, the 1926 net output is probably a higher figure than the Income Tax assessments cover for industrial income.

Incomes from professions, commerce and trading are outside

the scope of the Census of Production. The number of persons concerned is 77,186 (Census of Population) in the following groups:

(*a*) Fishing	3,833
(*b*) Professions	5,305
(*c*) Personal Service	9,896
(*d*) Trading, etc.	22,130
(*e*) Entertainment and Sport	276
(*f*) Industrial Production	35,500
(*g*) Others	246
Total	77,186 persons

These persons "working on own account" may be placed in the Income Tax and non-Income Tax classes as follows:

(*a*)	Nil	3,800
(*b*)	5,300	Nil
(*c*)	2,000	8,000
(*d*)	7,000	15,000
(*e*)	70	206
(*f*)	5,000	30,500
(*g*)	246	Nil
Totals (say)	9,500	57,500

It may be regarded as arbitrary treatment to place all of (*a*) in the non-Income Tax category and all of (*b*) in the Income Tax class. An accurate division is impossible, and the net error after mutual cancellation is probably small. Of Class (*c*) it may be said that the more important hotel and boarding-house keepers, publicans, hairdressers, undertakers, etc., would be "employers" in the Census returns, and those working on their own account would for the most part be outside the Income Tax assessments. The total number is 7,943 males and 8,842 females—16,785 persons. About 60 per cent. of these persons returned themselves as employers and about 40 per cent. as working on their own account. Of the 10,000 in the latter class, one-half consisted of lodging-house keepers.

The trading section (*d*) consisted of some 32,000 persons, of whom 10,000 were employers and 22,000 working on their own account. Of the latter, 2,000 were hawkers and newsvendors, 4,000 were dealers in agricultural produce (cattle, pigs, horses, etc.), 500 were dressmakers, and most of the others small shopkeepers.

Section (*f*), numbering 35,500; included 8,500 dressmakers, 350 milliners, 5,500 shoemakers and 7,500 tailors; and of these, 14,000 were working on their own account. These are taken as excluded from the Income Tax assessments. Jobbing carpenters and other woodworkers were about 5,000; blacksmiths, 4,000;

and 2,000 were motor mechanics, of whom I treat half as working on their own account. Of those engaged in building, house-painting, plumbing, etc. (3,500 on their own account), 3,000 are treated as not in the Income Tax assessments; and road transport workers provide about 3,500 in the same income class. It is therefore estimated that 19,500 are included in Schedule D and that 57,500 are in the same category as wage-earners.

It is now possible to proceed to a classification of the 344,731 incomes remaining. Of these, 2,400 were returned as in the service of foreign governments. The remaining 342,330 were :[1]

Employers (Schedule D)	27,000
On own account (Schedule D)	19,500
On own account (Wages)	57,500
Assisting relatives (Wages)	5,500
Employees	233,000
Total	342,500 persons

The Schedule D income, £24 million, is estimated to include £8 million from investments abroad and £16 million from profits and interest. About £1 million is added for evasion, and £2 million for dividends from abroad and interest paid to persons under the Income Tax exemption limit.[2]

For the 57,500 working on their own account an average of £95 is taken, giving an income of £5,500,000. The 5,500 assisting relatives and the 233,000 employees are estimated to have had an aggregate income of £19 million on the following basis. 85,500 were in domestic service and 12,000 in religion. These 97,500 are put at £60 per annum each (£5,850,000). The remaining 141,000 include 37,000 in small industrial production, 25,500 in personal service, 19,800 in professions and 44,000 in commerce and local government. They are classed at £95 average, giving £13,395,000.

We have therefore added to the £108¼ million, already summarised, a sum of £52 million; and the total number of persons whose incomes amounted to £160¼ million is 1,223,000, which is the number of persons at work on the date of the 1926 Census.

There are some further additions of income to be made and some deductions. The Schedule C "Actual income" in 1926–27 was £2,228,000, including incomes below the effective exemption limit and incomes of charities, friendly societies, etc.

Remittances from emigrants to their relatives in the Irish Free State represented a relatively large proportion of the national

[1] Census of Population 1926, Volume VII.

[2] The Revenue Commissioners estimated that in 1924–25 about £11 million was received in the Irish Free State from investments abroad.

income in 1926–27. The official estimate made for 1924–25 was £2,250,000 net (*Irish Trade Journal*, Volume I, No. 6, March 1926). The total value of Money Orders from the United States of America to the Irish Free State in the year ended 31st March, 1927, was £1,458,095; and from Great Britain and Northern Ireland £912,242. Many Irish residents in the United States of America send regular remittances in dollar notes. It is not an over-statement to put the income from remittances in 1926 at £3 million net. Although this is not income for Income Tax purposes, the fact that this amount came from abroad and did not represent an internal transfer makes it a proper addition to the national income.

All pensions paid by the central government have been included either in the Schedule E income or separately, with the exception of pensions to the Royal Irish Constabulary. The total amount awarded to members of this force on disbandment was about £1,130,000 and the then existing pensions amounted to £680,000 (Estimates for Public Services, 1926–27). By the terms of the Financial Settlement of 16th March, 1926, the Irish Free State paid to the British Government 75 per cent. of these pensions, viz. £1,357,500. The greater part of this is received by pensioners resident in the Irish Free State—at least two-thirds. If the proportions taken are £450,000 and £900,000, the first of these amounts is a drain from the Irish Free State and therefore deductible from the national income. The second is a drain from the Exchequer but not from the country, and its treatment raises the question of how payments from taxes should be regarded in computing the national income. If these payments have been earned, whether by previous personal service or by investment in Government securities, I treat them as additive. If, like old age pensions, they have not been earned but are merely internal transfers of income on social or charitable grounds, I ignore them. Assuming some kind of continuity between the Irish Free State and the earlier Ireland as part of the United Kingdom, one may justly, for national income purposes, consider these Royal Irish Constabulary pensions as deferred income and add them to the national income. The net amount to add is about £½ million.

Old age pensions amounted in 1926–27 to £2½ millions. These are excluded from the national income.

Pensions paid by the United Kingdom Government to Irish Free State residents (ex-soldiers) may be put at £2 million for the exempt-from-income-tax part; against this about £¾ million was paid in 1926–27 by the Irish Free State to pensioners resident in

the United Kingdom. The net addition to national income is £1¼ million.

The interest received by the Irish Land Commission from farmers and paid to holders of Irish Land Stock has not been included in the Schedule D assessments since the Financial Settlement of 19th March, 1926. The amount in 1926 was £3 million. In arriving at the agricultural income this amount has been deducted so that the interest paid out from the Irish Free State may be ignored and only the interest received by Irish resident stockholders included. The greater part of this is in the Income Tax assessments. I enter £½ million as an estimate of the amount not in the Income Tax assessments. All these additions amount to £7¼ million.

Two deductions must be made: (*a*) Assurance premiums paid by Irish Free State residents to companies established out of the Irish Free State, less the amount spent by these companies in the Irish Free State; (*b*) profits remitted from the Irish Free State on outside investments in the Irish Free State.

The total amount of premiums paid out from the Irish Free State in 1926–27 was £1,714,755. Allowing, on a rough estimate, one-third for commissions and management, and one-third for claims paid, the net amount to be deducted is £½ million.

The Revenue Commissioners estimated that in 1924–25 £3,340,000 was paid from the Irish Free State on outside investment in the Irish Free State. Against this they estimated that £11 million was received in the Irish Free State from investments made in other countries, and this figure of £11 million has been carried by me at £10 million into the statement of national income because there were some realisations between 1924 and 1926. A deduction of £2¾ million is now made.

The estimated national income of the Irish Free State in 1926 becomes £164½ million. The details are summarised in the Table (B).

Although I think Mr. Colin Clark's definition of national income in "The National Income, 1924–31" is arguable, the Irish Free State figures may be brought into comparison after adding £½ million for employers' contributions for certain social services (Irish Free State Statistical Abstract, 1932) and £1 million for sums written off stocks out of income (on a proportionate basis between the United Kingdom and the Irish Free State Schedule D "Actual Income," adopting Mr. Clark's United Kingdom estimate.) It is necessary to deduct £½ million for interest on internal debt, another £½ million for losses Schedule D, £¼ million for loss on the

post office and £¼ million annuity to the British Exchequer. It happens that these changes leave the net figure unaffected.

TABLE B.

Estimate of the National Income of the Population of the Irish Free State in 1926.

		Income (£ million).	Numbers (000).
Occupation of Land		56	649
Ownership, including beneficial ownership, of land		3¼	—
Schedule A (non-agricultural)		10½	—
Schedule C		2¼	—
Schedule D		24	46·5
Schedule E		21½	84
Wage-earners not in Income Tax assessments		35½	384
Workers on their own account not in the Income Tax assessments		5½	57·5
Pensions (net) not in Income Tax assessments		2½	—
Dividends from abroad and Interest not in Income Tax assessments		2½	—
Evasion		1	—
Persons in foreign government service		¼	2·5
Remittances from emigrants		3	—
Gross total		167¾	1,223·5
Less—	£ million.		
Assurance premiums (net) paid to outside companies	½		
Profits remitted abroad	2¾	3¼	
Net total		£164½	

Mr. Clark estimated the net national income of Great Britain and Northern Ireland to have been £3,684 million in 1926. This is an average per head of population of £81·4, while the average for the Irish Free State is £54·8, about two-thirds (67 per cent.) of the United Kingdom figure. For the gainfully occupied numbers of the population the United Kingdom income was £191·5 and the Irish Free State income £132, or nearly 70 per cent. The national income of the Irish Free State in 1926 was about 4½ per cent. of the national income of the United Kingdom.

A difficulty arises in making an approximate comparison with Mr. Clark's Distribution of Income, owing to the predominance of agricultural income in the Irish Free State and the nature of this income. Of the 268,930 farmers in the Irish Free State, 201,570 occupy farms of less than 50 acres. The gross output per worker (farmers, farmers' children and other relatives working on the home farm and agricultural labourers) was £96 in 1926 (including £34 consumed by the agricultural community). The farmer in the

Irish Free State is an independent worker in the same income class as the average Irish wage-earner. With the extension of land purchase, agricultural " profits " have become a small part of the agricultural income. Of the £56 million of agricultural income, £50 million is bracketed, in the following comparison, with wages.

Distribution of National Income in the Irish Free State and in the United Kingdom, 1926.

Source.	Irish Free State (£ million).	Per cent. of Total.	United Kingdom (£ million).	Per cent. of Total.
Wages:				
(*a*) Agricultural . .	(*a*) 50	(*a*) 30	(*a*) —	(*a*) —
(*b*) Other . . .	(*b*) 43·5	(*b*) 27	(*b*) 1,352	(*b*) 36·7
Salaries	21·5	13	821	22·3
Rent	13·75	8·3	270	7·3
Profits and Interest . .	23·25	14·1	1,008	27·4
Net income from abroad [1] .	12·5	7·6	233	6·3
Total . . .	164·5	100	3,684	100

[1] The Irish Free State figure is swollen by £3 million of emigrants' remittances.

T. J. KIERNAN

SOUTH AFRICA AND THE GOLD STANDARD

When England left gold in 1931, the South African Government—the Nationalist Party—decided to remain on gold. The Opposition—the South African Party—was at first divided in its views, but when General Smuts declared in favour of following England, his party accepted his decision. In February 1932 a select committee was appointed to inquire whether " the interests and the welfare of the Union " demand the maintenance of the gold standard " and in what way a departure from the standard would affect the interests of the country." In view of the Prime Minister's statement that the Government was determined to keep on gold, members of the South African Party were unwilling to serve on the Committee, but the difficulty that witnesses would be examined only by those who favoured the gold standard was in part avoided by the appointment of two Labour members, one of whom was opposed to gold.

In the evidence contained in the Report of the Committee (S.C. 9–32) the strongest plea advanced by witnesses in favour of abandoning the gold standard was that of correcting the position of the farmer, especially in regard to his mortgage debts. Farms had been bought when prices were high, the fall in the price of primary products made it impossible for farmers to meet the interest on bonds. It was claimed that even with the reduction in railway rates and the export bounty of 25 per cent. on wool, the farmer was worse off than if exchange had been at parity with sterling and there had been no subsidy or reduced railway rates. Producers of other agricultural exports, receiving smaller or no bounties, suffered still more.

The witnesses for the Gold Producers' Committee claimed that a devaluation of 25 per cent. would not lead to any substantial increase in the cost of living of Europeans in the Union. In the absence of an increase in the cost of living on the Witwatersrand of more than 10 per cent., there was said to be no case for an increase in the level of wages; they asserted that such an increase of prices was improbable. The mining witnesses were even more emphatic that an increase in Native wages could not be justified on the ground of devaluation of the currency. On the other hand, the Mozambique Convention required pass fees

and all payments made to the Portuguese Government in respect of their natives working on the mines to be paid in gold. This stipulation would almost certainly be maintained, but the stipulation that the wages of the Portuguese natives must also be paid in gold could probably be modified. The mining witnesses estimated that the increase in these and other costs would not exceed £1,000,000 per annum, or 3 per cent. of the working expenditure. To avoid the possibility of an under-estimate, the maximum increase was put at 10 per cent., with a devaluation of 25 per cent. The increase in the price received for gold was estimated at £15,400,000 per annum. On the basis of a maximum increase in working costs of 10 per cent., the net gain would be £12,200,000, of which £4,200,000 would be taken by the Government, assuming there was no change in the present basis of taxation.

The gold interests also claimed that there was an even greater advantage in devaluation through the possibility of working huge bodies of lower-grade ore. It was claimed that a reduction in working costs from nineteen shillings to fifteen shillings per ton would more than double the life of the Witwatersrand mines, and that the devaluation method of making low-grade ores profitable would be even more advantageous than the four shillings reduction in working costs.

One of the advantages which politicians asserted would follow leaving gold was increased gold production. Under examination the mining witnesses admitted that the majority of mines were working to the full extent of their capacity, so that the margin for immediate increase was not large. But, they said, about £2,000,000 a year extra would be spent on capital expenditure during the next five years. This would ultimately increase production. The adoption of this policy would reduce the total number of gold ounces produced during the period, although the mines would be operating on at least as large a scale as regards the ore crushed. To the members of the committee it seemed so unlikely that shareholders would approve of such a policy, and so probable that they would wish to get the full immediate advantage of the premium on gold, that a similar question was put on the following day. Again the representatives of the Gold Producers' Committee asserted that output would fall a little in the first twelve months. As the opposite statement has been used as one of the arguments in favour of leaving gold, the reply is noteworthy, as is the admission that there is no possibility of opening large-scale mines and bringing them to the production

stage within five years. The Gold Producers evidently believe that the time lag in the rise in prices is to be very great.

The Association of Chambers of Commerce, the Chamber of Industries, and the two large commercial banks favoured leaving gold because of the benefit to primary producers and the encouragement it would give to the return of capital which had been sent overseas.

There was much division of opinion amongst those who favoured leaving gold. The Federated Chamber of Industries, the Association of Chambers of Commerce, and the Standard Bank favoured keeping South African currency at parity with sterling whatever happened to sterling. The representative of the other large commercial bank added the rider that should sterling tend to depreciate too much, the South African currency should again be detached from it. The Gold Producers' Committee and Dr. Samuel Evans, chairman of the Crown Mines, were in favour of allowing the currency to depreciate to a lower level as a preliminary to devaluating at this unknown level.

In favour of remaining on gold, the Reserve Bank and the Netherlands Bank witnesses gave evidence that the Union had adequate exchange resources and was in a balanced position in regard to international payments, and that any benefit given to exporters must come from other interests in the country. Trade Union representatives stressed the danger of a rise in prices, which would result in a fall in real wages. Other witnesses pointed out that however desirable devaluation might be in some countries as a corrective of the transference of wealth brought about by the fall in prices, the existence of the gold industry in the Union altered conditions. Elsewhere there was a possibility that devaluation would result in a gain at the expense of the rest of the community for those who had not suffered from the fall in prices. In the Union the existence of the gold industry made it certain this would happen, and amongst the sufferers would be many farmers who did not produce for export.

In its Report the Committee discussed the extent of the transfer of funds to London which had been brought about either by the belief that sterling would improve or that South Africa would depreciate its currency. The highest figure given by responsible witnesses was £13,000,000 or £14,000,000 (South African)—the estimate of the representatives of the two large commercial banks. From evidence of bank deposits and sales of exchange, the Committee came to the conclusion that the total

cash resources withdrawn from the Union were between £9,000,000 and £10,000,000. Part of this, however, was sent over in anticipation of goods which would be ordered later, and was not a real loss of capital. This export of funds had not led to an undue contraction of credit. Even the bankers who wished to leave gold said there was no restriction on advances so long as the security was good.

The Committee believed that abandoning gold must cause an adjustment in the price level, and that the producers' advantage from depreciation would be only temporary. During the transition period exporters from gold standard countries do suffer, but this had been met by subsidies wherever they appeared necessary. The world is not going to pay more for gold just because South Africa leaves the gold standard. The additional profits must come from the citizens of the Union, and the Committee could not see how this transfer could take place without a serious readjustment of values. Nor could it accept the theory that abandoning gold would lengthen the lives of the mines. The crushing capacity of the mines is a constant quantity. A material increase requires heavy capital outlay. If prices rise as a result of leaving gold, the development part of the mines' programme would be cancelled. In fact, a premium on gold, instead of increasing, might reduce the life of the mines. If the mining interests believed that the premium would disappear or be balanced by rising prices within a few years, they might reduce the proportion of low-grade ore, so as to get the maximum premium "even at the risk of future impoverishment of the mines." The safety of the currency, to which Mr. van der Horst had directed attention, was also emphasised in the Report. It would be practically impossible to resist the efforts of the influential interests, already trying to obtain depreciation, to carry the depreciation further and further.

After the debates in Parliament following the issue of the Report, the banks were easily able to handle exchange at gold parity. There was no restriction on speculation, but there was little or no speculation because it appeared that there was no immediate prospect of leaving gold. The recent success of the South African Party candidate at the Germiston by-election led many to believe that those in favour of leaving gold would win the next general election. In itself, however, it did not affect the exchange position, for the present Government may hold office until 1934. The announcement on December 22, 1932, of

the decision of Mr. Tielman Roos, formerly leader of the Transvaal section of the Nationalist Party, to resign his seat on the Appellate Division and return to politics was the immediate cause of the abandonment of gold. His object was to form a coalition party, whose aims were to be the abolition of racialism and of the gold standard, and the extension of the industrial colour bar. White workers who might fear a rise in prices were told that it was wrong to allow natives to drive cars carrying whites. As it seemed certain that Mr. Tielman Roos would influence some Nationalist votes in the House, a flight from the South African pound commenced in the week before Christmas. On December 24 the demand for sterling had become so great that one of the banks had to decline any further applications at eleven o'clock. On December 27 the Government announced its decision to relieve the Reserve Bank of its obligation to redeem its notes in gold. The Minister of Finance stated that between £2,000,000 and £3,000,000 left the country in three days. In addition, there was a rush to convert notes into gold at the Reserve Bank. It was clear that withdrawals would have been beyond the capacity of the banks, which would have had to close their doors.

Mr. Roos has criticised the Government for not adopting his policy of devaluation at a point below sterling. He points to the need of the stability of gold. General Smuts complains that we have not linked up with sterling. In view of the possibility either of suspicion of our currency, which would drive more capital away, or of a great return of funds, great speculative changes in the demand and supply of exchange seem possible. It is very doubtful if a rate fixed to-day could be maintained. Considerable variations in rates are almost inevitable, and trade will suffer. But the view of the Gold Producers that we must endure this seems sound. If financial speculation plus political uncertainty can drive us off gold, it can drive us off any other standard until the political situation clears. Control, however, is in the hands of the commercial banks, and they are in favour of following sterling, towards which the rate is rapidly moving. On December 28, the banks' selling price of £100 sterling was £70 10*s*. On December 29 no sales were made. On December 30 the rate was £91, and on January 3 £96. Since we left gold the Reserve Bank has kept out of the exchange market. Exchange can be obtained from the commercial banks only for what are regarded as legitimate purposes.

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January 3, 1933.

THE SITUATION IN SOUTH AFRICA 1929–32

THE abandonment of the Gold Standard by South Africa has been largely represented as due predominantly to political causes. In this article an attempt will be made to give the relevant economic data for a more fundamental analysis of the development of the economic situation in recent years.

In 1929 South African visible exports reached a peak figure since the War inflation of £98 m. and visible imports a peak of £83 m. The balance of payments for the year in respect of current income and long-term loans was unfavourable by over £15 m.[1] For the calendar years from 1925 to 1929 net short and long term borrowing averaged £9·4 m. per annum. The average interest payments abroad from 1925 to 1929 were about £5·5 m. and the dividend payments some £10·5 m. per annum.[2] In 1930, owing to further long-term borrowing abroad of £10 m., and a reduction in the value of imports by £19 m. as compared with a fall in the value of exports of only £14 m. (owing to the increased volume of agricultural and pastoral exports which offset, to some extent, the decline in export prices), the unfavourable balance in respect of current income and long-term borrowing was converted to a favourable balance of about £4 m. There was the usual accompanying rise of the Commercial Banks' funds [3] in London and an increase in total deposits (accompanied, however, in this case by a decline in current discounts and advances in South Africa).

[1] For detailed figures of the Balance of Payments 1924–32 see Appendix, Table I. (Banking statistics referred to below are given in Table II.)

[2] The greater part of these dividends is paid by gold-mining companies and other companies closely associated with and dependent upon gold-mining.

[3] Throughout this article and on the graph in the Appendix, the abbreviated term "London Funds" (of the South African Commercial Banks), which is used for convenience, refers in fact to Money at Call, Securities and Bills Receivable, both in London and elsewhere outside the Union. No separate statistics are available for the purely London portion of these funds or that pertaining solely to the trade of the Union of South Africa. It is known, however, that the London proportion of these funds predominates in amount (in 1923 it appears from evidence to the Kemmerer and Vissering Commission that it was roughly about 60 per cent.). In any case the London proportion represents such an important part of the total of those funds outside the Union, and the economic relationship with the Union exerts such a strong influence upon it, that important economic fluctuations pertaining to the trade of the Union are clearly reflected in the total figures.

The situation was radically altered during 1931. Exports declined further both in volume and value. Borrowing overseas stopped almost entirely, and with the abandonment of the Gold Standard by Great Britain there began a panic export of capital which is discussed later in this article. By December 1929 advances and discounts of the Commercial Banks in South Africa had risen to £51 m. as compared with £37 m. in 1924, an increase of 39 per cent. Deposits meanwhile had increased by only £2·6 m., that is, by 4·5 per cent. The ratio of advances to deposits rose from 63 per cent. to 84 per cent. The favourable balance of payments in 1930 caused a decline in this ratio to 70·1 per cent. in December of that year. From December 1930 to December 1931, however, the Commercial Banks' funds in London declined from £38·5 m. to £22·9 m., and deposits in South Africa from £63·5 m. to £56·6 m., notwithstanding a small increase in discounts and advances in the Union. The ratio of advances therefore again rose to 80·6 per cent. The December ratio ot cash reserves to deposits declined from 15·3 per cent. in 1924 to 14·4 per cent. in 1929 and to 12·2 per cent. in 1931.

In 1931 Union exports were £72 m., a decline of £26 m. from the 1929 total. Adding an estimate of £10 m. for the loss of receipts from overseas borrowing, the Union can be said to have suffered a loss of receipts of some £36 m. Allowing for the fall in import prices of 19 per cent. which occurred between these two periods, the real loss can be estimated to have been £29 m.

This loss of real receipts from overseas had the same well-known effects in South Africa as were experienced in other raw-material-producing countries. It affected with particular severity the primary producers other than gold mines. It resulted in a serious disequilibrium between export prices and the prices of sheltered and protected production. The extent to which the primary producers referred to were affected is shown by the fact that, of the decline of £26 m. in total Union exports, £13·5 m. is accounted for by the decrease in the value of agricultural and pastoral exports, the value of which fell from £26 m. in 1929 to £12·5 m. in 1931. While the prices of agricultural exports fell by 43 per cent., the volume of agricultural exports only decreased by 14 per cent. Similarly the value of mineral products other than gold declined from £16 m. in 1929 to £6 m. in 1931. There was a decrease of 51 per cent. in the prices of mineral exports accompanied by a decline of only 19 per cent. in their volume.

That there was, *pari passu*, a very considerable decline in the national income in South Africa is certain, but a calculation of its amount is made impossible by the fact that the necessary statistics have not been computed by the Census Office since 1923.[1] Disequilibrium between prices of export goods and prices of goods and services of protected and sheltered industries intensifies the effects of a decline in the national income. The continuance of high prices in sheltered and protected production, coupled with the low and falling export prices and the consequent decline in the spending power of the export industries, leads to a contraction of the volume of protected and sheltered production.

The disequilibrium existing in South Africa is illustrated by the fact that whereas export prices (all exports excluding gold) had fallen in 1931 to 56 per cent. below their level in 1924, the prices of South African goods had fallen by only 23 per cent., and imported goods by 24 per cent. Agricultural and pastoral prices had actually declined by 61 per cent. A comparison of the average price indices for the years 1929 and 1931 showed that export prices (all goods excluding gold) fell by 46 per cent.; agricultural and pastoral exports by 44 per cent.; import prices by 19 per cent.; prices of South African goods by only 15 per cent., and the general wholesale price index by only 14 per cent. Moreover, the official statistics of employment showed a decline from 1929 to the end of 1931 of 9 per cent. As these statistics exclude farming, commerce and finance, and provincial, governmental and municipal services, they understate the decline in general employment very considerably. They give, however, some indication of the curtailment of sheltered and protected production.

At the same time there had, for some years, been a growing divergence between the wholesale price level in South Africa and in Great Britain. For 1931 (base 1924 = 100) the South African wholesale price index for all groups and the *Statist* wholesale price index, were 77·3 and 59·4 respectively. The index for South African exported goods showed a similar lag to the general wholesale index, and stood at 76.

[1] Moreover, one of the first steps taken by the Government when the depression began in 1930 was to suspend the annual census of Agricultural and Industrial Production. In 1923 the national income was calculated by the Economic and Wage Commission, on the basis of earlier calculations by Dr. Lehfeldt, as being £186 m., and the estimated net product included in this estimate and attributed to agricultural and pastoral producers was £47 m. These figures will serve as some indication of the relative magnitude of the fall in income from overseas and of the effects of the fall in agricultural prices.

The divergences between British and South African wholesale prices and between export prices and the prices of domestic production were brought about by the following factors:

1. By the favourable prices obtained for South African exports, other than gold, up to 1929, which were reflected in domestic prices.
2. By the heavy borrowing overseas (which increased purchasing power and bank credits), and by the large expenditure from loan funds in South Africa from 1924 onwards.

   In the seven years from 1924 to 1931 the external debt of the Union increased by £28 m. (20·8 per cent.), that is, by an amount which exceeded by £1·4 m. the increase of the external debt in the fourteen years from the date of Union to 1924. At the same time the internal debt increased from 1924 to 1931 by £21 m., that is, by 27·8 per cent. The annual debt charge increased from 1912 to 1930 by £6·7 m. (143 per cent.), and the debt charge per head of the European population increased by £2·6 or 74 per cent. The annual debt charges expressed as a percentage of Union Central Revenues were 26·7 per cent. in the financial year 1912–13, as compared with 35·7 per cent. for 1928–29 (in which year Union Revenue reached its highest point.[1]

   The average annual expenditure from loan funds for the three financial years ending March 1914 was £4·1 m. For the seven financial years from 1924 to March 1932 it was £11·3 m.—an increase of 176 per cent. A very considerable portion of these loan funds was spent wastefully in railway construction that was unproductive from the beginning, in irrigation schemes that were ill-conceived and uneconomic, in wasteful settlement schemes and subsidies to the agricultural co-operative movement, in relief of distress, and in the financing of ventures, such as the iron and steel industry, of very doubtful economic value.
3. By the new protective policy inaugurated in 1925 and the general increase in the customs tariff in that year, followed by a further substantial increase in selected

[1] These figures refer to the gross public debt—they do not, however, differ appreciably from changes recorded if estimated figures of the net public debt are used. The figures of annual debt charge include interest payments, costs of administration, and contributions to the sinking fund.

industries in subsequent years. The effects of the increase of the tariff can be illustrated by the fact that the gross value of output of all industrial undertakings in 1922–23 was £74 m. and the value added to materials £37 m. In 1929–30 the respective figures were £112 m. and £56 m., an increase of 51·3 per cent. in both the gross value of output and the value added to materials. It is clear that this large increase involved a very great transfer of resources from other forms of production and a heavy burden on the export industries.

4. By the inauguration of a far-reaching policy of State socialism, particularly in regard to agricultural and pastoral production. In the last seven years practically every important agricultural commodity has been subjected to some form of artificial interference with the free play of the forces of supply and demand. The interference has taken the form of fixing minimum prices, marketing through Government Boards, levying of export subsidies at the expense of higher internal prices, prohibiting imports, etc. Wheat, flour, bread, sugar, maize, tobacco, butter, cheese, cream, fruit and meat are some of the commodities whose domestic prices have, for some years, been artificially divorced from the movement of world prices. The resulting rigid internal price structure in these industries seriously complicated the difficulties of adjustment necessitated by changes in world prices since 1929.[1]

5. In addition, far-reaching Industrial Legislation from 1925 onwards had led to a greater degree of rigidity in the wage structure. By the end of 1931 such official statistics as are available show that nominal weekly wage rates in eight classes of occupation in the Union had, on the average, fallen by only 2·8 per cent. since 1931, and that real wages had increased by 3·6 per cent. since 1929 and 9·1 per cent. since 1924. In gold-mining average weekly wages increased by 10·9 per cent. between 1924 and 1931, and by 7·6 per cent. between 1929 and 1931.

A crisis developed with the abandonment of the Gold Standard by Great Britain. The financial situation was aggravated, not

[1] For a detailed analysis of this legislation see an article by J. G. van der Horst, to be published in *The South African Journal of Economics*, March 1933, which I was privileged to see in manuscript.

only by the resulting losses of exporters, financial institutions, etc., and the Reserve Bank, owing to the depreciation of their sterling holdings, but also owing to the fact that there was a panic outflow, notwithstanding stringent rationing by the banks, of funds from the Union in anticipation of South Africa also abandoning the Gold Standard.

The exact amount of funds transferred is not known. The amount estimated by the Select Committee on the Gold Standard was that £10 m. were transferred between September 1931 and February 1932. A large part of this, the Committee was convinced, represented quite temporary speculative transfers. It is, however, certain that a considerable part of the sum represented repayments, or anticipated repayments, of debt obligations in sterling by South African nationals, and was thus a relatively permanent export of capital.[1]

It is, in any case, clear that by the end of 1931, quite apart from the immediate crisis resulting from the currency change in Great Britain, South Africa was faced with the urgent need of undertaking the fundamental readjustments necessitated by the fall in export prices, the decline in the national income, the increase in the burden of debt, the prevalent unemployment, and the rigidity of the domestic price structure.

The decision of the Union Government to maintain the Gold Standard was probably based, in the first instance, on the desire to await developments overseas. The policy was, however, subsequently adhered to without a complete realisation of the conditions of disequilibrium which existed and which were, in fact, intensified during 1932.

It should be noted in particular that the rigidity of the domestic price and wage structure made it impossible for the gold-mining industry to obtain any appreciable benefit from the increased value of gold owing to the fall in world price levels. The fall in gold-mining costs (which, of course, was the only way in which the increased value of gold could be reflected as long as South African currency was at par with the dollar) was confined to the lower prices for imported stores used by the

[1] From the 30th September 1931 to the end of March 1932 total Commercial Bank deposits fell by 14 per cent., advances and discounts by 7 per cent. and the ratio of cash reserves to deposits fell from 11·8 per cent. to 12·7 per cent. The Commercial Banks' Funds outside the Union fell from £31 m. to £28 m., and the South African Reserve Bank's holdings of foreign assets was reduced from £6·9 m. to nil. The position is illustrated in the graph at the end of this article. At the same time Reserve Bank loans and advances to the Government and holdings of Treasury bills increased from nil to £2·9 m.

mines and the relatively small changes in the prices of local stores. Owing to the small proportion that the goods, whose prices are sensitive to world price changes, form of the costs of the gold mines, and owing to the considerable time lag before even these exert an influence, the mines had achieved negligible reductions in costs up to the end of 1931. The gold-mining industry accounted for 61 per cent. of Union exports in 1929 and 68 per cent. in 1931. The rigidity of the price and wage structure in South Africa almost entirely prevented this industry from benefiting by the higher real value of its product abroad.

It is significant that throughout the pages of the Report of the Select Committee on the Gold Standard, there is no indication that the implications of the economic maladjustment, outlined above, were understood, or that a policy for dealing with them had been formulated by those in control of the situation.

The Governor of the Reserve Bank argued as if nothing but the decision to maintain the Gold Standard was necessary, and spoke somewhat arrogantly of the powers of the Reserve Bank, which he stated would, if the Government suspended convertibility of notes into gold but did not change the position of the Reserve Bank, "go on paying its notes in gold and charging such rates of exchange as would keep the South African pound on a par with gold." [1]

By the decision to maintain the Gold Standard a measure of inflation as a means of relieving the situation was ruled out, and it clearly became necessary to carry out a stringent and balanced deflationary policy. It was particularly necessary to reduce real wages, and, if possible, interest charges, and costs in the export industries (including gold mines), and to bring about a closer correspondence between the prices of domestic and export goods. It was also necessary to balance the Budget, which by March 1932 showed a deficit of £2·5 m. in the Railway and Harbours accounts and of £2 m. in the Central Government Finances. The Government, however, either did not fully realise the need for such a policy, or felt itself, for political reasons, disinclined or powerless to put it into effect. As a result matters were allowed to drift. In the gold-mining industry (the wage standard in which exerts a far-reaching influence on the wages of all skilled labourers in the Union) no reduction in wages took place and the mine-owners, it seems, felt that

[1] Minutes of Evidence: The Select Committee on the Gold Standard; 21st February, 1932. Q. 16–17.

they would not have the support of the Government if they attempted to reduce them.

The reduction of nominal wages in the Civil Service and on the Railways were not greater than warranted by the fall in the cost of living, and savings were really effected in these services by drastic retrenchment and short time which increased the burden of unemployment.

At the same time the Government proceeded to take certain positive measures which greatly increased the effects of the disequilibrium which lack of policy failed to remedy.

In the first place, additional customs duties had been introduced in the 1931 Budget. These were followed in November 1931 by a special primage of 5 per cent. on all imports except a very small list of articles excluded, mainly on account of the inconvenience of collection. In December exchange dumping duties were levied on all goods which competed with local manufactures from countries with depreciated currencies, and the 1932 Budget imposed a special customs surtax of 7½ per cent. on the same goods, with the exception of farm requisites and machinery.

On the other hand, export subsidies ranging from 10 per cent. to 25 per cent. were paid on selected exports (mainly agricultural and pastoral, and excluding gold) as from November 1931. In this way the Government hoped to make good to these exporters losses incurred owing to the fall in export prices and losses incurred on exchange. Acting along the same political lines the Government continued and extended the policy of artificial price maintenance in agricultural and pastoral production, at the same time levying duties or quotas in order to force out accumulating surpluses by special subsidies, recouped from the higher domestic prices of these products.

The result of artificial price maintenance was to complicate the situation even in the case of products which normally do not figure in the list of Union exports. For example, the average wholesale price of wheat per 200 lbs. was 24*s*. 5*d*. in South Africa and 17*s*. 8*d*. in England in 1929. In 1931 it was 23*s*. 10*d*. in South Africa and 10*s*. 3*d*. in England. From being a large importer of wheat and flour, the Union became an exporter and was faced in 1932 with a heavy surplus of wheat produced at these artificial prices. A further example of the gap between domestic prices and export values is afforded by maize. During 1932 domestic values frequently exceeded export prices by over 100 per cent.

The added customs and primage duties and the exchange

dumping duties increased the gap between prices in the sheltered and protected industries and export prices. The special export subsidies introduced in November 1931, apart from the fact that they were arbitrary and uncertain in amount, could not and did not counteract the evil effects of the increase in the tariff. For they did not succeed in increasing the spending power of the export industries concerned except at the expense of reducing the spending power of other export industries (*e.g.* gold-mining) and at the expense of further increasing the cost of the tariff as a whole.

From 1924 to 1929 customs revenue increased from £7·6 m. to £10·2 m., or by 33·4 per cent. In 1932 the total customs revenue (including the primage, surtax, etc.) still exceeded the customs revenue obtained in 1929 notwithstanding that imports from overseas had fallen from £76·1 m. in 1929 to £32·7 m. in 1932, or by 57 per cent. Customs revenue was 13·4 per cent. of the value of overseas imports in 1929 and 32·1 per cent. in 1932.

As a result the disequilibrium existing at the end of 1931 was not rectified during 1932. In the first nine months of 1932 the various indices exhibit a uniform downward movement and the discrepancies recorded at the end of 1931 remained as before. The prices of agricultural and pastoral exports fell by a further 11 per cent. as compared with 1929. The index of imported goods declined by 9 per cent. and the index of the wholesale price of South African goods declined by 11 per cent. The latter (1924 = 100) stood at 67·5 in October 1932 as compared with 55·6, the *Statist* index-number on the same base. Employment declined further from 9 per cent. to 14·6 per cent. below 1929. Bank debits to individual accounts in the Union, which had declined by 14·4 per cent. from 1929 to 1931, fell by a further 17·3 per cent. if the first ten months of 1932 are compared with the first ten months of 1931.

The outstanding development during 1932, however, was the very large reduction in imports. Whereas recorded exports for 1932 were only £2·5 m. lower than in 1931, recorded imports fell by £20 m., from £53 m. in 1931 to £32·6 m. in 1932. This is a decrease of 60·8 per cent. on the value of imports in 1929, and of 49·1 per cent. on the value of imports in 1924. Taking these figures at their face value it is possible to attempt a rough estimate of the balance of payments for 1932, and it would appear, at first sight, that there was a favourable balance of payments of £18·8 m. for the year. These figures, however, exclude (as pointed out above) the export of capital which began in September

1931. Although there was an easing of the situation towards the middle of 1932 (and rationing of exchange was withdrawn), there can be no doubt that the general belief that no permanent adjustment could be expected in South Africa until a change in currency policy was undertaken, coupled with the reduced

TABLE I.

Union of South Africa. Balance of Payments.

	1927.	1928.	1929.	1930.	1931.	1932.
Exports	96·5	96·7	97·9	83·4	71·8	69·0
Imports	74·0	79·1	83·5	64·6	53·0	32·7
Credit	22·5	17·6	14·4	18·8	18·8	36·3
Other Credits :						
Ports and Transport	1·0	1·0	1·1	1·0	0·7	0·4
Foreign Nationals	1·0	1·1	1·1	1·0	0·7	0·6
Other Items	1·0	1·0	0·9	1·2	1·0	0·7
Total Credits not Capital	25·5	20·7	17·5	22·0	21.2	38·0
Debits not Capital :						
Freight, Insurance, Commissions	7·8	7·7	8·3	6·6	5·8	3·8
Interest	6·0	5·7	5·6	5·8	5·0	3·5
Nationals abroad	4·0	4·3	4·5	4·3	4·3	4·3
Emigrants	1·0	1·0	1·0	1·1	1·1	1·5
Foreign Services and Government expenditure	1·2	1·2	1·2	0·9	0·9	0·9
Dividends	10·6	10·3	10·3	9·5	8·5	8·0
	30·6	30·2	30·9	28·2	25·6	22·0
Debit Balance (−)	− 5·1	− 9·5	−13·4	− 6·2	− 4·4	—
Credit Balance (+)	—	—	—	—	—	+16·0
Recorded long-term Government and Municipal Loans	4·9	0·6	—	8·6	1·0	* 2·8
Recorded long-term Private Loans	1·5	2·2	0·9	1·4	—	—
Recorded long-term repayment of Loans	− 0·2	—	− 2·6	—	†	†
Remainder of Debit Balance (−)	—	− 6·7	−15·1	—	− 3·4	—
Remainder of Credit Balance (+)	1·1	—	—	3·8	—	† 18·8

* New Loan.

† See special remarks in the text concerning the export of capital.

spending power of the export industries, the policy of subsidising exports at the expense of imports, and the burdensome effects of the high tariff, led to a continuous temporary and permanent export of capital throughout 1932. Funds were temporarily held abroad in anticipation of an alteration in the rate of exchange and in anticipation of a more favourable opportunity

for importing at a subsequent date. In addition, the repayment of overseas debts and obligations by Union nationals abroad and the withdrawal of funds by foreign nationals from South Africa continued. Moreover, it is probable that the recorded export statistics overstate the value of exports. The value of exports is the "free on board" value in South African currency, and, in a time of falling overseas prices and depreciating currencies overseas, the values realised tend to be less than those stated at the time of shipment.

In any case the banking statistics do not reflect a situation such as the recorded figures of the value of imports and exports would by themselves have brought about if there had not been the abnormal export of capital referred to. In the first nine months of 1932 deposits in South Africa further declined by £3·2 m. Advances and discounts, however, declined by £6·2 m. and the ratio of advances to deposits stood at 73·8 per cent. in September 1932 as compared with 80·6 per cent. in December 1931. These changes are, however, largely explained by an increase in the Reserve Bank's holding of Union Treasury bills and loans and advances to the Government of £3·7 m.[1] The ratio of cash reserves of the Commercial Banks to deposits further declined in 1932 to 11·8 per cent. The Commercial Banks' funds outside the Union increased by £4 m. Reserve Bank notes in circulation declined from £8·0 m. in November 1931 to £6·4 m. in November 1932, that is, by 20 per cent. It would appear that, at the least, there was an abnormal export of capital from September 1931 to the end of 1932 (apart from the panic speculative transfers in the last three days before convertibility was suspended) of £15 m. It is probable that this is a considerable under-estimate. It is clear, however, that from September 1931 onwards the export of capital (whatever its exact amount) seriously aggravated the loss of income from abroad which the country was already suffering, and further curtailed economic activity.

[1] Apart from the reduction of the Reserve Bank's holdings of foreign bills and a continuous decline of Reserve Bank notes in circulation from £9·1 m. in December 1929 to £6·4 m. (the lowest point on record) in November 1931, the change in Union Treasury bill holdings and loans and advances to the Government is the only alteration of any importance in the Reserve Bank's position throughout the period under review in this article. Owing to the negligible variation in loans and advances, etc., prior to 1932, Reserve Bank figures have been omitted in the tables and calculations and in the graph given in the appendix. The Reserve Bank's discount rate was increased from 5 per cent. to 6 per cent. on November 13, 1931, and reduced to 5 per cent. on October 7, 1932.

The Budget prospects became worse during 1932, and at the beginning of November it appeared that the total deficit would be about £7 m. at the end of the financial year. It is clear that the Government and the Reserve Bank were hoping that, in spite of the widespread economic maladjustments which existed, and the lack of policy for dealing with them, the country would be able to continue the declared currency policy of the Government and the Reserve Bank, and that a change in world conditions would bring about a gradual improvement in the situation.

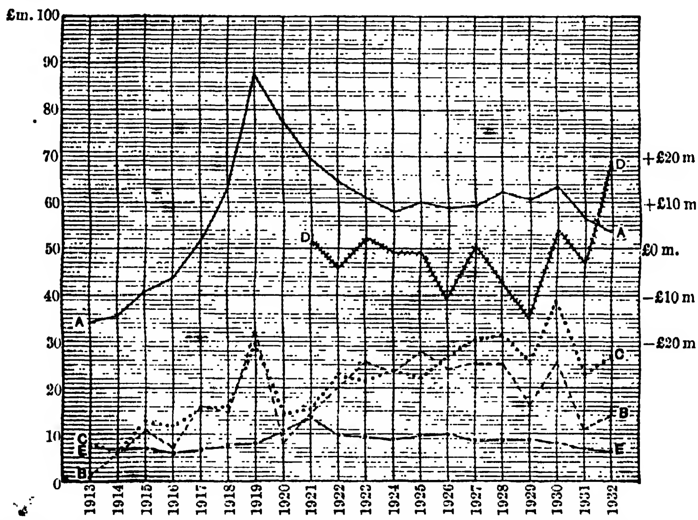
TABLE II.

Year.	A.	A′.	B.	B′.	C.	D.	E.	F.	G.
	Total Deposits in the Union (Commercial Banks).	Current Deposits.	Advances plus Discounts.	Reserve Bank's holdings of Foreign Assets (Foreign Bills and British Govt. Securities).	A–B plus B′ Deposits less Advances plus Reserve Bank's Foreign holdings.	Commercial Banks' Money at Call, Securities and Bills Receivable outside the Union.	Cash Reserves of the Commercial Banks.	Ratio of Cash Reserves to Deposits.	Ratio of Advances and Discounts to Deposits.
	£(000,000's).							Per cent.	
1913	34·2	18·0	32·9	—	1·3	8·1	7·2	21·0	96·2
1922	64·7	29·9	45·1	0·5	20·1	23·0	9·9	15·3	69·7
1923	61·1	32·0	38·8	3·3	25·6	21·5	9·5	15·5	63·5
1924	58·0	30·9	36·4	2·2	23·5	23·8	8·9	15·3	63·3
1925	60·1	33·3	38·5	6·3	27·9	22·2	9·7	16·1	64·1
1926	58·9	31·9	41·1	6·3	24·1	27·0	10·0	17·0	69·8
1927	59·4	33·2	41·8	7·7	25·3	30·5	8·7	14·6	70·4
1928	62·3	33·5	45·4	8·3	25·2	31·4	8·8	14·1	72·9
1929	60·6	30·5	51·1	6·6	16·1	25·7	8·7	14·4	84·3
1930	63·5	27·9	44·5	6·5	25·5	38·5	8·1	12·8	70·1
1931	56·6	24·7	45·6	—	11·0	22·9	6·9	12·2	80·6
1932 (Sept.)	53·4	22·6	39·4	—	14·0	26·9	6·3	11·8	73·8

The change in the political situation, brought about by the announcement of Mr. Tielman Roos that he would re-enter the political arena in order to bring about the devaluation or depreciation of the South African currency, finally took the matter out of the hands of the Government and the Reserve Bank.[1] With the banking and economic situation which had developed the Government and the Reserve Bank could hold out no hope of again stopping the panic demand for foreign exchange and the run on the banks and building societies for cash in order to

[1] In view of the extraordinary burdens the primary producers were forced to bear, and the stagnation in economic activity throughout the country, this political development cannot be regarded with surprise.

convert notes into gold, as they had done in 1931.[1] No other course remained but to suspend convertibility. In doing so the agreement between the Reserve Bank and the gold mines for the sale of the gold output to the former automatically lapsed and the Reserve Bank lost control of the gold output. Thereby the Reserve Bank was reduced to a position of almost complete impotence. It ceased temporarily to operate, and for the time being it left the adjustment of the exchange entirely to the Commercial Banks in consultation with the gold mines and other financial interests.



Curve A = Total Deposits of Commercial Banks in South Africa at 31st Dec. ————

Curve B = Excess of Deposits over Advances in South Africa plus Reserve Bank's Foreign Holdings at 31st Dec. – – – – – –

Curve C = South African Banks' London Funds at 31st Dec. · · · · · · · ·

Curve D = Net Balance of Payments (see special right-hand scale) -|-|-|-|-|-|-

Curve E = Cash Reserves of Commercial Banks at 31st Dec. —·—·—·—·

The most significant fact in the development of the situation in South Africa since the world depression is the extraordinary weakness displayed by the Reserve Bank during the whole of the period under discussion. Apart from its control of the note issue and the sale of the gold output, and the foreign exchange resulting therefrom, the bank appears to have exerted little else than an unimaginative and restrictive influence on the economic and financial situation.

The events of the last two years again illustrate clearly that

[1] The Minister of Finance declared that between £2 m. and £3 m. left the country within three days.

in the case of South Africa (as in Australia) the strong commercial and financial nexus with Great Britain, which involves large South African funds in London and British funds in South Africa, exerts an all-powerful influence on South African financial and currency policy.

Throughout the period under discussion in this article, just as before, during and after the War, the movements of credit in South Africa vary in accordance with the net balance of payments and the Commercial Banks' funds in London. The graph appended to this article illustrates this clearly. It compares the London funds of the Commercial Banks with the excess of deposits over advances and discounts in the Union of the same banks, plus the Reserve Bank's holding of foreign bills and securities, at the 31st of December each year from 1913 to 1932. It shows secondly the Net Balance of Payments of the Union from 1921 to 1932. The course of total deposits in the Union and of the cash reserves of the Commercial Banks is also indicated.

The graph reveals the very close connection between the South African Commercial Banks' funds in London and the excess of deposits over advances and discounts, etc. in the Union (*i.e.* spending power in South Africa). The sudden rise in the Commercial Banks' funds in London in 1925 and their subsequent higher level is due to the amalgamation of the National Bank of South Africa with Barclays Bank (Dominion, Colonial and Overseas). The graph reveals also a high degree of correspondence between the Net Balance of Payments of the Union and both the London funds of the Commercial Banks and the course of credit in South Africa (*i.e.* deposits less advances and discounts, etc. of the Commercial Banks).[1]

These are the real factors that control the credit conditions in South Africa. It should therefore be the policy of the South African Reserve Bank to facilitate the smooth working of the credit mechanism by a suitable currency policy and by using

[1] It should be noted that the graph is constructed from the statistics issued by the Census Office. For 1931 and 1932, however, the Net Balance of Payments is estimated and the graph does not take account of the abnormal export of capital referred to in this article. The banking statistics for 1932 are those for the September quarter. The Net Balance of Payments, however, is estimated for the whole year. I am indebted for the method of constructing this graph to Professor Tocker's article on "The Measurement of Business Conditions in New Zealand" in the *Economic Record of Australia*, Vol. I, No. 1, and his article in the British ECONOMIC JOURNAL for December 1924, and to Professor D. B. Copland's comments on the whole problem in his book on *Credit and Currency Control* (Melbourne, 1932).

every influence it can bring to bear on Government and banking policy to bring about those economic measures which will adapt the South African economy, with the least amount of unnecessary hardship, to changes in the South African national income, and income from abroad.

A policy in a financially dependent country like South Africa, which rests on the assumption that the relationship between the British and South African banking systems is of lesser importance than the currency policy of the South African Reserve Bank and the Government, is based on a complete fallacy. Yet it was this assumption which apparently lay at the root of the official policy in the last two years. With the political and banking situation as uncertain as it still is, it is too early to attempt to forecast the course of future policy, but it is to be hoped that it will be more suited to the special financial conditions of South Africa than it has been in the immediate past.

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January 24, 1933.

A NOTE ON IMPERFECT COMPETITION

1. In a very suggestive and admirably lucid article in the Economic Journal of last December Mrs. Robinson attacked certain problems of imperfect competition. Postulating, for simplicity, an industry in which there are no external economies, she assumed that in an imperfect market (1) each firm tries to maximise its own net monopoly revenue and (2) the industry comprising all the firms is in equilibrium, in such wise that there is no inducement either for insiders to leave or for outsiders to enter it.[1] She did not treat this case in its full generality, but confined herself to the simplified sub-case in which all the firms are exactly alike and situated over against their customers in an exactly similar way. In this sub-case, by means of an ingenious geometrical technique, she obtained several interesting and important results. In studying her article, however, I felt a doubt whether the two conditions postulated might not prove on occasions to be incompatible with one another. In order to satisfy myself on this point, I was led to apply to Mrs. Robinson's problem the more powerful tool of algebraic analysis. The result is to confirm Mrs. Robinson's conclusions and to extend them over a wider range. It may be of interest to some readers of the Journal to see the problem worked out in this way. Though, however, it is, to my mind, a better and securer way, I should certainly never have thought of it if Mrs. Robinson had not first blazed the trail. This note attempts only the subordinate task of improving, on a rather bleak ice-wall, a staircase which has already been made and ascended.

2. Let us begin with the simple case, treated in the December article, in which all the firms are exactly similar and are similarly situated towards would-be buyers. Write $F(p)$ for the total quantity of product that all the buyers together will buy if the price at works of all the firms is p. Let $f(p)$ be the quantity of product provided by each firm at average cost p. Let there be n firms. Let $\frac{\delta\psi(p, n)}{\delta p}$ be the rate of substitution, among one

[1] It is also tacitly assumed, as is proper for the purpose in hand, that there are a large number of firms, or, more generally, in the terminology of the sections which follow, that n is large.

firm's customers, of product from the other firms when the price charged by the one firm, and by it alone, increases. Then Mrs. Robinson's two conditions of equilibrium may be written:

$$^{1}\ (1)\ \frac{1}{n}F(p) = f(p).$$

$$(2)\ \frac{1}{n}F'(p) - \frac{\delta\psi(p, n)}{\delta p} = f'(p).$$

3. Secondly, let us abandon the assumption that all the firms are of equal size, while retaining the assumption that their structure and environment are such as to make the prices at works charged in all of them the same. In this case all we have to do is to make n mean, not the number of firms, but the number of times that the output of any particular firm that we are considering divides into the total output of all the firms, when any given price rules everywhere. The equations set out in the preceding section then apply.

4. Thirdly, let us abandon the above assumption of similarity of situation as well as that of equality of size among the firms, and so allow of different prices ruling at works in different firms. In this case the condition of general equilibrium, namely, equality of receipts and of costs in the widest sense, which we are positing for the industry as a whole, need not hold good of any particular individual firm. We must, therefore, confine our argument to those particular individual firms, actual or imaginary, of which it does hold good. If we do this the equations set out above are still applicable. We must, however, give n a rather more complicated meaning. It means the number of times that the output of the firm we are considering divides into the total output of all the firms when some defined price P is ruling at works in our firm and the prices at works ruling in other firms are such that the whole system is in equilibrium.

5. It is thus clear that in all cases we have two equations and two unknowns. Hence (1) Mrs. Robinson's two conditions are always compatible, and (2) the problem envisaged is determinate.

6. The equations yield immediately the following conclusions:

(1) In the special case where the degree of imperfection in the market is nil, *i.e.* in a perfect market,

[1] Since, by definition $\left\{\frac{1}{n}F(p) - \psi(p, n)\right\}$ is identical with $f(p)$ for all values of p, we may, if we wish, write, instead of, but not in addition to, the first equation, $\psi(p, n) = 0$.

$$\frac{\delta\psi(p, n)}{\delta p} \text{ is an infinite negative quantity,}$$

$$\therefore \quad f'(p) \text{ is an infinite negative quantity.}$$

$\therefore$ the actual value of p is the minimum average cost in respect of which it will pay our firm to have any output: *i.e.* the firm is producing on its optimum scale.

(2) If there is any (finite) degree of imperfection in the market, $\frac{\delta\psi(p, n)}{\delta p}$ has a negative value less than infinite.

$\therefore$ since F' always has a finite negative value, $f'(p)$ has a finite negative value.

$\therefore$ the actual value of p is larger than the aforesaid minimum average cost, and the firm is producing on less than its optimum scale.

(3) If there is an infinite degree of imperfection in the market, in such wise that $\frac{\delta\psi(p, n)}{\delta p} = 0$ for all values of p, Mrs. Robinson's two conditions can, apart from freak cases, be jointly satisfied only for nil output. For practical purposes, though not, of course, in point of logic, they are, therefore, incompatible.

(4) In the cases described in § 2 and § 3, where a single price at works in all the firms rules in equilibrium, the question arises what will happen to this price if the function F alters in such a way that the aggregate quantity demanded in equilibrium is increased. From the equations at the end of § 2 we can derive the further equation:

$$p \cdot \frac{\frac{1}{n}F'(p) - \frac{\delta\psi(p, n)}{\delta p}}{\frac{1}{n}F(p)} = p \cdot \frac{f'(p)}{f(p)}.$$

But the left-hand side of this equation represents the elasticity of what Mrs. Robinson calls the individual demand curve for the product of the particular firm we are considering, and the right-hand side the elasticity of that firm's average cost curve. Over the range relevant to our problem we may assume with confidence that the elasticity of this latter curve will grow (numerically) larger as the price falls towards minimum average cost.[1] It follows that anything which renders the left-hand branch of this equation for all relevant values of p larger causes

[1] It may be noticed, as a curiosity, that, if $f''(p)$ is negative over the relevant range, the position of the price index which satisfies Mrs. Robinson's two conditions is one of unstable equilibrium.

the equilibrium price to fall; and conversely. When, therefore, the function F alters in such a way that in equilibrium the aggregate quantity demanded is increased, there will follow a fall or a rise of price according as the elasticities of the individual demand curve over the relevant range are made numerically larger or smaller than before. A fall in price implies an increase in the output per firm and, therefore, if a fall occurs and if there is an increase in the number of firms, this increase must be less than in proportion to the increase in total output.

7. These results add nothing of significance to those reached by Mrs. Robinson. The algebraic method, however, enables us to establish them without the need of assuming similarity either of size or of situation among the firms involved. It also enables us to set out clearly what the factors are upon which the form of the individual demand function depends. As was indicated in § 2, the check which a rise in the price asked at works by the firm we are studying imposes on the quantity of product demanded from that firm is made up of two elements; (1) a reduction in the total purchases of those who have hitherto bought from that firm, and (2) a substitution by them of purchases elsewhere for purchases from that firm. The elasticity of the individual demand function in respect of any situation is thus determined by these two elements. It may be written

$$\frac{pF'(p)}{F(p)} - \frac{p}{f(p)} \cdot \frac{\delta\psi(p, n)}{\delta p}.$$

Now, when there is a common price throughout the market, $\frac{pF'(p)}{F(p)}$ is the elasticity, in respect of the price p, of the aggregate demand function for the whole market. This is, of course, negative. The other element, to be subtracted from it, is positive and is clearly larger (1) the less imperfect is the market and (2) the larger is n. Therefore, unless the market is absolutely imperfect, the individual demand function for any firm is always more elastic than the aggregate demand function. In the limiting case of a perfect market, it is always infinitely elastic, even though the elasticity of the aggregate demand function is nil. It is thus convenient to regard the expression $\frac{\delta\psi(p, n)}{\delta p}$ as a *measure* of market imperfection in respect of the firm we are considering, when the average cost at works there is p and the whole system is in equilibrium. It may be noted finally that, if we have started from a position of equilibrium, and a new factor is intro-

duced, which renders the market less imperfect than it used to be, so that $\frac{\delta\psi(p, n)}{\delta p}$ gives place to another expression of larger value, the elasticity of the individual demand function over the relevant range is, *pro tanto*, enlarged, price at works falls, and aggregate output is increased. As before, if there is an increase in the number of firms, the increase must be less than in proportion to the increase in total output.

8. It should be observed in conclusion that the aggregate demand function F employed here is not identical with the aggregate demand function of ordinary elementary analysis. In that analysis, when an aggregate demand function for any industry is set over against an aggregate supply function, it is usually assumed that costs of transport are negligible, so that the whole of the demand and the whole of the supply can be regarded as brought together at some single point in space. $F(p)$ is thus the quantity of demand that will be so brought together at price p. Here, on the other hand, $F(p)$ is the sum of the quantities of demand that will be brought together at a number of different points when the price p rules in all of them.

A. C. Pigou

THE IMPERFECTION OF THE MARKET

A FURTHER NOTE

THIS note is a comment upon Mrs. Robinson's interesting article on "Imperfect Competition and Falling Supply Price" (JOURNAL, December 1932, p. 544).

1. To begin with a small matter. "Is it the case," Mrs. Robinson asks, "that falling average cost to the firm necessarily leads to falling supply price for the commodity? Each writer who has contributed to the discussion so far appears to regard the prevalence of falling supply price as established as soon as he has established the fact that average costs to the firm may fall. The purpose of this article is to challenge that view" (*loc. cit.*, pp. 549–50). As one of the writers concerned, I should like to say that not only have I never taken that view, but, in an article to which Mrs. Robinson refers more than once, I went out of my way to repudiate it. My reason for thinking that "increasing return or diminishing supply price" in an industry may result from diminishing cost in the individual firms was stated thus: when there are diminishing costs in the individual firms, "enlargement of existing firms is often (though *not always or necessarily*) the most profitable way of increasing the output of an industry—and hence the method actually adopted" (JOURNAL, March 1930, p. 106; italics added).[1] That is to say, the conclusion that diminishing costs in the individual firms may lead to diminishing supply price in the industry was limited (as it obviously must be) to the cases where the enlargement of the industry is achieved by enlargement of the firms, and it was expressly stated that the enlargement of the industry will not always be achieved in this way. Thus my contention was that "falling average cost to the firm" will *often*, but *not always or necessarily*, lead to "falling supply price for the commodity"; and this is exactly what Mrs. Robinson argues—indeed, she goes,

[1] Similarly, in dealing with a rather different case, the transition from diminishing cost in the firm to increasing returns in the industry was made thus: "expansion of particular businesses *might* be"—not will be or must be—"the most profitable way of securing an increase in aggregate output; so that, in the absence of other obstacles, the larger output could be obtained at a lower cost per unit" (*loc. cit.*, p. 108).

if anything, rather further than I did in claiming that the result will "probably," instead of "often," follow. (I can speak only for myself, but I fancy that other contributors to the discussion will be as surprised as I was to find themselves saddled with the opinion which Mrs. Robinson attributes to them. It is noteworthy that she does not give a single quotation or even reference to show that any one of them has ever held it.)

2. While this conclusion of Mrs. Robinson's is, I think, generally accepted by those who have given thought to the subject, her ingenious proof of it raises some questions on which further light would be helpful.

She supports it by an appeal to a series of diagrams based on a theorem of Mr. Kahn's—viz. that, in the conditions postulated, equilibrium requires "the individual demand curve of the firm" [*i.e.* the curve showing the demand for its output] to be "a tangent to its average cost curve" (*loc. cit.*, p. 547). My first question is: What exactly does the average cost curve represent?

Mrs. Robinson has seen and explained very clearly as regards the industry as a whole that, the conditions of supply (*i.e.* technique, organisation and so on) being given, the change in cost, or supply price, consequent upon an increase of output depends on the nature of the cause (*e.g.* the change in demand) which gives rise to it; [1] and that it is therefore impossible to draw a supply or cost curve for the industry as a whole showing unequivocally the cost, or supply price, of each output, since the cost, or supply price, is not uniquely determined by the output. (If such a curve is to be drawn at all, it must be drawn with reference to some definite and specified conditions of demand and be used to illustrate the effects of such changes in demand only as fall within the limits thus prescribed.) It is therefore rather puzzling that she should proceed to draw a cost curve for the individual firm without explaining why similar considerations do not apply in this case or, alternatively, what are the conditions of demand to which her cost curve refers.[2] For it would seem,

[1] Or, more generally, the cost of a given output depends upon the way in which it is provided, and this in turn depends on various circumstances besides the size of the output and the technical conditions of the industry—among them, the character of the demand.

[2] We are told two things about the conditions of demand: (1) "the demand curves of the separate firms are all alike" (p. 545), and (2) "the imperfection of the market arises solely from differences in transport costs incurred in respect of different purchases from the single firm, or from such differences between customers in their preferences for particular firms as cannot be altered by the action of the firms themselves" (pp. 545–6). We may fairly be asked to infer that the cost-curve only applies under those conditions and that the demand-changes contemplated must not introduce any difference between the demand

prima facie, to be true of the individual firm, as of the industry as a whole, that the cost of expansion depends on the nature of the stimulus (*e.g.* the change in demand [1]) which occasions it, and that the cost of production is not uniquely determined by the output, but depends in part on the character of the demand.[1]

The point is simple and can be illustrated by adapting Mrs. Robinson's highly apposite examples. A firm can expand in various ways,—*e.g.* by opening a new branch (shop, factory, or what not) or by squeezing more out of its existing establishment; by adding a new "line" (say a new quality, shade or pattern) to its existing products or by increasing the output of its old "lines," by adapting its methods to the requirements of new customers or by continuing in its old routine. Its costs are likely to be affected by the choice which it makes, and its choice will depend in part upon the character of the demand which it is seeking to meet. In other words, the cost at which a firm provides any given output depends on the way in which it provides it, and this in turn depends on the character of the demand for it. For example, if the demand for retailers' services is concentrated closely about a particular shopping centre, a firm may supply all its customers from a single establishment, whereas if the demand were more widely spread it would operate through several branches: its costs might be different in the two cases even though its volume of sales were the same.

Consider, then, the cases taken by Mrs. Robinson. In the first, "the imperfection of the market is due to differential transport costs," and "the increase in [total] demand comes entirely from a fringe of newly-established suburbs on the outskirts of a town." Then "the inhabitants of the suburbs would at first buy from the various firms in the centre of the town, but as soon as firms were set up in their own districts, they would transfer their custom to the new firms," with the result that "the demand curves of the old firms" "fall back to their former position," and so do their outputs and costs, the "new demand" being entirely "satisfied by the new firms" (*loc. cit.*, p. 552). But why do not the old firms open branches in the suburbs? Presumably, since the imperfection of the market is due to

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curves of the separate firms or any market-imperfection not belonging to one of the specified types. Mrs. Robinson's examples illustrate the first type of market-imperfection only. It is argued below that the limitation of market-imperfection to this type, together with condition (1), is not sufficient to render the cost of a given output uniquely determinate.

[1] Here, of course, the "demand" is the demand for the output of the individual firm.

transport charges and not to any bias in favour of the new firms, because they could not, by doing so, satisfy the additional demand as cheaply as, or at any rate more cheaply than, the new entrants. That is to say, in the conditions postulated by Mrs. Robinson, because expansion in this way would cause their average costs, not to fall, but to rise—or at best to remain unchanged, so that a cost curve relating to expansion of this kind would, over the relevant range of outputs, not be falling but rising, or at best horizontal. This, it would seem, is the reason why the enlarged demand does not cause the old firms to expand nor therefore costs and supply price to fall,—why, in Mrs. Robinson's terminology, the old firms' "new demand curves" fall back into their former position.[1]

Similarly of her other cases. In the second, there was "a fringe of customers attached to the market of each firm who were never provided for in the manner which they would really have preferred (for instance, the location of the old firms may all have been equally inconvenient for them). They were indifferent between the old firms. But the increase in total demand has called into existence firms which exactly meet their various requirements" (*loc. cit.*, p. 553). One would suppose that if the increase in demand calls new firms into existence at all, this is because the existing firms cannot (*e.g.* by opening new branches in convenient positions) cater for the new customers and the old fringe as cheaply as a new entrant can: which means, on Mrs. Robinson's assumptions, that if they made arrangements to meet the wants of these customers as well as the new entrants do, their average costs would rise,—that the cost curve relevant to expansion of this kind is, not falling, but rising.[2]

[1] It is no doubt possible to imagine, for purposes of illustration, that the new customers have a rooted prejudice against shops which are not self-contained, independent businesses even if they offer exactly the same service and facilities as those which are, and that this prejudice cannot be overcome by the offer of any amount of special facilities and attractions or by expenditure of any kind, while the preference for shopping near home is similarly resistant to the offer of special facilities at the centre—so that the firms at the centre cannot satisfy the new demand as effectively as a new entrant at *any* cost. But the practical significance of such cases is perhaps not very great. They can be dealt with analytically by saying that the cost of enlarging existing businesses so as to meet the new demand as effectively as a new entrant is infinite.

[2] Here, as in the first case, the reason why the existing firms do not supply the new demand from their existing establishments is, of course, that the rising costs of transport (including those borne directly by the consumers as well as those incurred by the firms) offset the fall in the cost "at works." Mrs. Robinson has adopted Mr. Sraffa's method of treating transport costs—including those incurred by the producer—as a deduction from price, not an addition to cost. The price, or receipts per unit, shown in the diagrams is, so to speak, the price "f.o.b. at works," not "c.i.f." at the goods' destination.

The third case is not quite so clear and I am not sure that I interpret it aright. Here " the increase in demand " is " spread evenly over the whole market—for instance, by a uniform increase in the density of population," and " the new firms " are " set up, so to speak, in between the old firms (either geographically or in respect of special qualities which appeal in various degrees to different customers)," but the old firms expand so as to satisfy part of the additional demand. Here again it would seem, *prima facie*, that the emergence of the new firms is due to the fact that the old firms cannot (*e.g.* by opening convenient branches or otherwise developing qualities which make the appropriate appeal) supply the wants of the intermediate customers so cheaply as (or at any rate more cheaply than) a new entrant can—though they are, in this case, able to supply part of the additional demand as cheaply. This is why the "new demand curves " take the position they do take : *i.e.* on the conditions postulated, it is because further expansion of the old firms, if it took a form which satisfied the wants catered for by the new ones, would not cause their average costs to fall.[1] Once more an average cost curve relating to expansion of this kind would not, like those shown in the diagrams, slope downwards towards the right.

Expressed generally, the proposition which Mrs. Robinson is supporting appears to be this : If an increase in demand occurs in a part of the market [2] which existing firms cannot reach, by expansion, as cheaply as a new entrant can, they will not expand to meet it ; and the mere fact that they could lower their average costs by putting additional supplies on some other part of the market will not cause the price of the commodity to fall.[3]

However this may be, it is evident that Mrs. Robinson's cost

[1] Indeed, it would seem that Mrs. Robinson could have illustrated her three diagrams (*loc. cit.*, p. 551) representing the three various effects which an increase in total demand may have upon the output and costs of the firms in an industry, and therefore on the " supply price " of its product, without postulating any difference whatever in the character of the increase in demand—by supposing in each case exactly the same change in total demand and taking up three different hypotheses about the cost at which existing firms could make the appropriate expansion.

[2] The division of the market need not be geographical. Customers who differ in taste, prejudice, knowledge, disposition and so on belong to different parts of the market. Another way of putting the point would be to say that the existing firms cannot, by expansion, satisfy the new demand as effectively as a new entrant at so low a cost.

[3] Her proof is not designed to establish the proposition in this general form, being limited to the special case defined by her initial assumptions ; but it could doubtless be extended to cover the more general case.

curves are not intended to show the cost which the old firms would incur if they expanded in such a way as to satisfy the new demand as effectively as a new entrant. They relate to some other kind of expansion. But what kind? We cannot suppose them to depict the cost of expanding in the cheapest possible manner; for if the ordinate of each point on the curve represented the lowest possible cost per unit at which our firm could turn out the quantity of product represented by its abscissa, Mr. Kahn's theorem would no longer hold good. In equilibrium, receipts per unit cannot indeed fall below the minimum possible cost per unit, but they may exceed it.[1] For a firm may provide its output in a way which is not the cheapest possible, if by doing so it adds to its receipts as much as it adds to its costs. (For example, it may open a suburban branch even though it could supply the product more cheaply at its central establishment, if the first method would secure it enough custom to cover its costs and the second would not.) Nor can we, I think, suppose that the ordinates of the curve represent the *actual* costs which the firm would in fact incur if it produced the outputs represented by their abscissæ, *i.e.* the costs of producing them in the manner which would be most profitable in existing circumstances; for, as we have seen, these depend partly on the state of the demand. A curve of this kind would be liable to change position with changes in demand.[2] And Mrs. Robinson's evidently are not; for in all the diagrams the cost curve remains undisturbed when the demand changes, and the conclusions that "the price of the commodity will be unchanged" "if the individual demand curve does not alter its slope," will be raised if it is "less elastic in the new position" and lowered if it is "more elastic in the new situation" (pp. 550–51), depend on the assumption that it does so. If the cost curve as well as the demand curve had to be redrawn when demand changes, we could infer nothing at all

[1] Unless indeed "receipts" and "demand price" are to be calculated by deducting from the firm's actual takings the excess of its actual costs over the costs which it would incur if it provided its output in the cheapest possible way—which excess is, in equilibrium, the additional expenditure necessary to maintain its receipts at their present level instead of allowing them to drop to what the output would fetch if it were provided in the cheapest possible way. But a "demand curve" constructed thus would not be independent of the firm's costs, and Mrs. Robinson has expressly said that hers are.

[2] Unless indeed it is drawn with reference to some specified conditions of demand setting prescribed limits to the type of demand-change which can be studied in connection with it. I cannot believe that Mrs. Robinson would limit the application of her curves in this way without saying so and indicating precisely what restrictions she was placing on the character of the demand-changes.

about the elasticity or form of the demand curve required to secure an unchanged, raised or lowered price.

The first question which I want to ask is, therefore, this: In constructing an "average cost curve," what exactly are the costs to be set against each output? I feel sure that there is a perfectly simple answer, but it would help me, and perhaps other readers of the JOURNAL, if Mrs. Robinson would say what it is.

3. My second question relates to Mrs. Robinson's treatment of "normal profits" and "equilibrium."

"If entry into the trade is possible, the industry will only be in equilibrium when profits are normal. If profits are more than normal, new firms will tend to enter the industry, and its output will tend to increase. If profits are less than normal, firms will tend to leave the industry, and its output will tend to decrease. Only when profits are normal will there be no tendency for the output of the industry to alter" (p. 546). As applied to the conditions postulated by Mrs. Robinson, this reasoning is familiar and cogent if we suppose that entry into each trade and movement from one to another costs nothing—that entry is not only "*possible*" but *free*. For then profits must (after allowing for differences in risk and so on) be the same in every trade, and in each trade the level of profits excess above which will cause new firms to enter is the same as the level deficiency below which will cause old firms to move out: this is the normal level. Seeing, however, that free entry into a trade is difficult to reconcile with the notion of an imperfect market, Mrs. Robinson goes on to re-define "normal profits," and, if I understand her aright, "equilibrium." We have "to define normal profits in respect to the particular industry, and it is that level of profits any excess above which will attract new firms" (p. 547). She proceeds: "The proposition that the industry is in equilibrium only when profits within it are normal is then reduced to a tautology." But not, surely, if "equilibrium" is used in the ordinary sense (the sense, too, in which Mrs. Robinson seems to have been using it in the passage quoted above), viz. that an industry is "in equilibrium" when there is no tendency for its output to alter. Equilibrium in this sense does *not* require profits to be normal in Mrs. Robinson's sense: it requires that they should not be *above* normal: they may be any amount below it provided they are not below the level which would cause firms to leave the industry. If there were no costs of movement or entry these two limits would coincide, but since, on our present hypothesis there are costs of entry, it would appear at first

sight that, in the conditions postulated by Mrs. Robinson, they need not do so; for the profits in any given industry might, it would seem, fall short of the level elsewhere, by any amount less than is necessary to compensate for the cost of movement, without causing the industry to contract.[1] The usual way of meeting this point is, of course, to say that when the old firms go out of business, new ones will not enter to take their place, and that this process of wastage will go on until profits in the industry are once more on a level with profits elsewhere (allowing for differences of risk, costs of entry and so on); so that, in the long run, our limits coincide and price becomes equal to average cost, including cost of entry.[2] But Mrs. Robinson's assumptions preclude this answer: a firm dies because its costs have risen (which is ruled out by the assumption that "the costs of individual firms do not alter with the passage of time"), or because it has lost its grip on the market (which is ruled out by the assumption that "the demand curves of the separate firms are all alike").

Thus it would appear that Mrs. Robinson is defining "the equilibrium of the industry" in such a way that, on her postulates, an industry may be "out of equilibrium" although there is no tendency for its output to change: that, in fact, she is *defining* it to mean that profits there are at the level "any excess over which will attract new firms," not inferring that this is a condition for its occurrence.

My second question, then, is: Is this interpretation correct?

If it is, the condition that price must be equal to "average cost" (as defined by Mrs. Robinson) is, it would seem, not necessary in order that the output of the industry should be stable; it is necessary only in order to secure the condition that profits stand at this maximum level—with which, indeed, it is identical. For average cost is defined so as to "include the average, per unit of output of the normal [*i.e.* this maximum] profit, along with other costs": and, as we have seen, price or receipt per unit may, in the conditions postulated, fall below this level

[1] Provided, of course, that they are not below the minimum level which is necessary to induce the entrepreneurs to supply the factors which they provide at all. The lower limit to profits in the trade is set by this minimum level or by the *net* profits obtainable by movement whichever is the higher.

[2] Alternatively, we may suppose that the total quantity of resources (including entrepreneur's services) available to the community is expanding, so that if profits fall below the level necessary to compensate for costs of entry, new resources avoid our industry and flow into others until the relative levels of profit are once more adjusted to the costs of entry. But the conception of a "moving equilibrium" of this type raises many difficulties.

without causing the industry's output to contract,—though it cannot rise higher without causing it to expand.

Similarly, on this interpretation, Mr. Kahn's theorem does not mean that the individual demand curve of the firm must be a tangent to its average cost curve in order that there should be no tendency for the industry's output to alter, but merely in order that the firm should be earning this maximum profit.

What is necessary in order that the industry should be "in equilibrium" in the ordinary sense of having no tendency to expand or contract its output is that price should lie *within the limits* set by "average cost" defined so as to include Mrs. Robinson's "normal profit," and "average cost" defined so as to include the minimum profit, any deficiency below which will cause firms to leave the industry. It need only be *equal to* average cost if the profit included as a cost is the profit which is actually being earned; [1] and it is only when the two limits coincide that there is one definite figure from which the actual profits cannot depart without setting up a tendency for the industry to expand or contract. Only then can Mr. Kahn's theorem be interpreted as a statement of what is required for "equilibrium of the industry" in the ordinary sense of the phrase. As we have seen, this coincidence is difficult to reconcile with Mrs. Robinson's initial assumptions. But perhaps there is some method of reconciliation which is not immediately apparent and renders unnecessary the interpretation of "equilibrium" suggested above.

4. My questions have been framed to bring out what I conceive to be the fundamental dilemma presented in all attempts to treat these matters precisely. So long as we are content with a rough and ready indication of the forces at work, we can keep fairly near to the facts: but any attempt to make our treatment exact is apt to lead either to a degree of abstraction which renders the apparatus inapplicable to the actual phenomena we set out to explain or to a degree of complication which makes it cumbrous to use. As regards the matters at present under discussion, the root of the difficulty lies, as it seems to me, in the fact that the costs of any given output both affect and are affected by the state of the demand. I have tried to elucidate Mrs. Robinson's solution. In conclusion, I should like to indicate

[1] When this is done, the statement that the demand curve must be a tangent to the average cost curve becomes simply a way of saying that the firm's output must be adjusted so as to yield the highest profit which circumstances permit, and that there is only one output which yields a profit as great as this—or only one, at any rate, in the immediate neighbourhood of that chosen.

briefly an alternative line of approach—not in the belief that it is more satisfactory, but in the hope that its very inadequacy may throw some light on the complicated nature of the phenomena under examination.

The total cost at which a firm provides a given output may be divided into two parts, viz. (i) the *minimum cost* of the output, *i.e.* the cost of providing it in the cheapest possible way known to those in control, and (ii) the *special cost* of the output, *i.e.* any additional cost, over and above the minimum, incurred (whether for advertisement, transport, the provision of special facilities or what not) with a view to enhancing its selling value. (In both cases the "cost" includes the minimum payment necessary to secure the services of any resources which the owners of the firm provide themselves.) As a rule, though not in certain special cases, the minimum cost depends on technical considerations and is determined solely by the size of the output. The amount of the special cost depends, of course, partly on the conditions of demand (*i.e.* the consumers' tastes and wealth, their position in space, their preferences as between our firm and others, their responsiveness to advertisement, the costs at which other firms can produce and advertise, and so on) and partly on the technical conditions in our firm (*i.e.* the cost at which it can provide various types and amounts of advertisement, facilities, transport, etc.). In equilibrium, it is determined by the simple rule that (1) expenditure of this kind is expanded up to the point at which the final increment of it causes an equal addition to the selling value of the output (or if there are several such points, then that one of them which yields the greatest excess of total selling value over total cost). Given the prices at which each output will sell if provided (and advertised) in the various ways open to the firm and given the costs at which the firm can provide (and advertise) it in each of these various ways, the total cost at which the firm will provide the output and the total sum which it will receive for it are determined. (I assume for simplicity that the cost at which our firm could produce and advertise a given output in a given way is constant.)

The output which a firm will provide when in equilibrium is also determined by the general condition of which the rule just stated is a particular application: viz. that the owners must not be able to gain by increasing or diminishing expenditure in *any* way (whether by increasing or diminishing special cost without changing the quantity of output, by altering the quantity of output without changing special cost, or by altering both output

and special cost together): which implies, on the ordinary assumptions about continuity, that the final increment of expenditure on *every* line yields an addition to total receipts equal to itself. It follows that (2) the quantity of the firm's output must be so adjusted that a small variation in it, whether accompanied by a change in the total amount of special cost or not, must cause a variation in total receipts equal to the variation in total costs. (If there are several outputs satisfying this condition, then that one will be chosen which yields the greatest excess of receipts over cost.) Incidentally, it follows that if we suppose the value of each output to vary continuously with the special costs devoted to it, the price at which a firm's final increment of product is sold must be equal to the difference which that increment makes to the firm's minimum cost *plus* the addition to special cost necessary to sell it at that price and without a cut in the price charged for the rest of the output: that is to say, *in all cases* (whether simple competition, imperfect competition or absolute monopoly) the price of a firm's final increment of output must be equal to the saving in cost (including advertising and marketing expenses, if any) which it would make if it refrained from producing it while keeping price unchanged.

Equilibrium also requires that (3) the price per unit at which our firm's output is sold should be not less than its average cost per unit nor more than the price per unit which will just induce the most readily attracted potential competitor to enter the industry. If we follow Mrs. Robinson in supposing that all firms are in equilibrium when the industry is, that is as far as we need go. To allow for the fluctuations of individual firms, elaboration would be necessary.

A change in the character of the demand—say the concentration of customers nearer to the source of supply or a decline in the public's "suggestibility" or the substitution of a few customers placing large orders for a larger number buying the same total quantity of product in smaller lots—is liable to alter in either direction the amount of special costs appropriate to some, or all, outputs: though, of course, it does not necessarily do so. As a rule, any change in demand has the effect of changing both the quantity which it is profitable to produce and the expenditure which it is profitable to devote to the production of a given output.

Analysis along these lines can be readily expressed in symbols and may be illustrated by a simple three-dimensional figure.[1]

[1] It can only be packed into a pair of plane curves either (*a*) by setting against each output the total cost of producing it in the manner most profitable in existing

But an accurate formulation of it and discussion of its applications must be left to another occasion. Here it must suffice to say that the main object of it is to emphasise and allow for the fact that the cost of an output is not uniquely determined by its size, but depends also on the character of the demand: that accordingly a change in demand is apt to alter costs and price, not only through its effect on the volume of output but by changing the amount of expenditure which it is profitable for producers to devote to a given output; and that in a world of imperfect markets a substantial part of the community's resources are absorbed in the efforts of business concerns to find and to create outlets for their products. If economic theory is to be brought closer to the actual conditions which it sets out to explain, it must, in one way or another, develop an apparatus which displays and can handle the dependence of cost upon the character of the market and the closely connected phenomenon that "demand" is not simply a *datum* to which the producers adjust themselves, but, in large measure, created and moulded by them. I am not so bold as to think that I have found that apparatus: I urge only that it is needed.

G. F. Shove

Mrs. Robinson comments on the above as follows:—

I have only space to make a brief comment on Mr. Shove's criticisms.

(1) I did not mean to attribute an erroneous opinion to Mr. Shove in the phrase which he quotes. Indeed it is obvious that his realistic method of analysis and my highly formalised method do not operate in the same *terrain*, and any argument which turns upon the *results* obtained from such different sets of assumptions must in the nature of the case be idle.

(2) Mr. Shove has convicted me of introducing an assumption which I did not state, namely, that the costs of the individual firm varied only with the amount of output, whereas actually costs are also likely to vary with the nature of the increase in demand. It is possible to argue that the necessity for making this assumption deprives my analysis of all interest. But I should contend,

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circumstances and the total receipts obtainable for it when produced in this way, or (*b*) by deducting from the selling value of each output its special costs so as to get a net receipts schedule and curve to set against the minimum costs schedule and curve. The first device is open to the objection urged above—that the curves are not independent and are therefore of little use for indicating the effects of change. The second conceals rather than illuminates the nature of the influences governing receipts.

first, that there are a number of instances in which my assumption will be approximately fulfilled; second, that my simplified method of analysis enables us to isolate a point which it is exceedingly difficult to disentangle from Mr. Shove's more intricate scheme. For he states that the "enlargement of existing firms is often . . . the most profitable way of increasing the output of an industry—and hence the method actually adopted." But this at once raises the question, "most profitable to whom?" Mr. Shove does not make clear the distinction between the equilibrium of the individual firm and the equilibrium of the industry. The firm will expand up to the point at which marginal revenue to it is equal to its marginal cost, but the entry of new firms will be governed by a comparison between average cost and price. In Mr. Shove's treatment the conditions for the equilibrium of the firm are not clearly distinguished from the conditions of equilibrium of the industry, and this distinction appears to me to be of fundamental importance.

(3) With Mr. Shove's third point I am in entire agreement, and I merely refrained from mentioning it to avoid opening a fresh topic. Indeed I should go further than Mr. Shove and maintain that there are many cases in which profits will not tend towards normal in face of a contraction of demand even when there is "free entry" into the industry.

JOAN ROBINSON

REVIEWS

William James Ashley, a Life. By ANNE ASHLEY. (London: P. S. King. 1932. Pp. vi + 176.)

ASHLEY'S career was so varied, compared with those of many scholars, that even to one who fancied he knew it and him fairly well Miss Ashley's short *Life* is full of news. The writing is intimate and there are intimacies which fall beyond the most widely interpreted range of a reviewer in the ECONOMIC JOURNAL. But the spiritual pilgrimage from a Baptist hatter's home in Bermondsey, through the Oxford of Stubbs and Jowett and Toynbee, by way of Germany and Harvard, to Modern Churchmen's Conferences and a final residence under the shadow of Canterbury Cathedral is hardly one of these; and the most "lay" economist ought to know that Ashley sometimes preached sermons. For all this was not boxed off from his economics and economic history and political activities: the two sides blended.

He thought in terms of nations and institutions, of Church and State, as did Stubbs; in terms of social right and Christian ethics, as his father and Toynbee did. He owed to the Oxford of the early 'eighties, and to those German historical and national economists whom he seems to have found out for himself with hints from Toynbee and Cliffe Leslie, a high doctrine of government and no fear of "state socialism." In fact he accepted, and always held to, much of the Marxian historical analysis, and he called himself an "evolutionary socialist" in his latest years, when the political world was calling him something quite different. The decided acceptance of Joseph Chamberlain's leadership cost no effort, once the argument had carried conviction, to a man who was both warmly patriotic and unencumbered by any old allegiance to *laissez faire*. It should be added that to the essential Ashley, Chamberlain social reformer was an even more sympathetic figure than Chamberlain tariff reformer, though he was always shy of talking "social reform."

Very early in life he had formulated a conception of his professional life's business from which he deviated little to the end. "It seems to me that the work of the Economist should be (i) the investigation of economic history . . . (ii) the examination of

modern industrial life in *the piece.* We can leave to the Cambridge people hair-splitting analysis of abstract doctrine" (p. 35). Or again, in his first address as Professor at Toronto . . . "the economist will not aim at ending with a 'law of rent' or a 'law of production' based on Ontarian facts, but with a picture of Ontarian agriculture, and of the influences that affect it . . ." (p. 51). When appointed the first Harvard Professor of Economic History in 1892, he told his audience in his inaugural lecture that "six months' steady work would probably suffice" to familiarise the historian with that "interesting chapter of modern thought," political economy from Adam Smith to Mill and his critics. As Mill supposed that the leisure of a busy man in two years was enough to put all the important principles on paper, six months seems ample. Ashley never supposed that six months' work would give understanding of the economic world. Many years later he welcomed Marshall's *Industry and Trade*; but he was not much interested in economic algebra, or in statistics, or in the niceties of classification and definition.

How long ago a home at Cambridge, Mass., seems in which there were no labour-saving devices and all the bread was made at home (p. 76). Almost as remote as these views on a vanished political economy may seem to the younger economic lions of Oxford, Cambridge or London, gnawing at the editor's fundamental equations. And indeed they are a little remote from us all.

It was, in the main, simple patriotism and love of the place England which decided Ashley in 1901 to make that move from Harvard to Birmingham which "puzzled many of his American friends" (p. 88), as we can very well understand. Picture an American incumbent of an Oxford chair throwing it up for one in a new university at Birmingham (Ala.). It was, as Miss Ashley says and as this reviewer very well remembers, in the spirit of a missionary that Ashley took up his work as head of the Birmingham Faculty of Commerce. He had the missionary's troubles: "he must in the following months and years have had many moments of discouragement and perhaps even sometimes of doubt of the wisdom of leaving Harvard" (p. 89).

But however success might ebb or flow in the new Faculty, the municipal economics of Birmingham and the adviser's place on one side of national politics, which his lining-up with Chamberlain had given him, left scope for—and as time went on absorbed—all his spare activity. He wrote an important semi-official memorandum on the draft measure for Unemployment

Insurance in 1908, and he threw himself into the work of the Unionist Social Reform Committee. "The sphere of industrial legislation is the natural field of Conservatism," he wrote, because Conservatism had never burnt incense to *laissez faire.*

Between him and his Free Trade friends, in the decade before the War, there was only a shadow of a division—over the nuts and wine; perhaps a shade more in type—on the strictly economic fundamentals. Toronto and Harvard and his own warm patriotism had taught him to underline the imperial arguments. He attached a weight to the "dumping" argument which some who then differed from him have, in their turn, learnt how to attach. And he understood as well as any of them the risks of unwise protection. He thought that the scales of a tolerably balanced argument tipped one way. They thought that they tipped the other. And then each side threw in its forecast and tradition. (A letter from Marshall on p. 137 shows Marshall himself sitting by the scales in 1901 and apparently not quite able to read off the pointer.)

Something was written in the JOURNAL at the time of Ashley's death about the later public and learned activities which his daughter describes in Ch. XV. The *Life* ends as it began with intimacies which are hardly for these pages. All Ashley's friends will value it, and those interested in the course of recent economic thought should value it not less. J. H. CLAPHAM

Gold and Monetary Stabilisation. (Lectures on the Harris Foundation, 1932.) By PROFESSOR J. VINER, DR. G. HABERLER, PROFESSOR H. PARKER WILLIS, PROFESSOR L. D. EDIE, PROFESSOR J. H. WILLIAMS. (The University of Chicago Press. 1932. Pp. xii + 174. 11*s*. net.)

OF the five lectures contained in this volume, which were delivered in January 1932, those of Professors Viner, Parker Willis, Edie and Williams explicitly discuss current monetary problems, while that of Dr. Haberler contains a theoretical analysis, not without its implicit relevance to present affairs, of the underlying forces at work in the trade cycle. Of the four former, Professor Parker Willis is content to remain in the pre-1914 world of economic concepts; monetary stabilisation has no interest for him; he is sceptical of the desirability and practicality of credit control; he concludes "that the best Federal Reserve policy will be that of 'hands off,' with rates maintained at a normal level, and no effort to attempt to interfere artificially with the course of events."

The contributions of Messrs. Viner, Edie and Williams are all intensely interesting; each in his own way brings out the changes that have come over the working of the gold standard and discusses how central banks should deal with the consequential problems. They all hold, with greater or less reluctance, that the gold standard must be given a further chance, and in particular that the United States must abide by it now; but they also recognise that it is incumbent on the Federal Reserve system to take steps to secure some measure of internal stability. Professor Edie excels in the vigour and directness with which he advocates steps to combat the "vicious shrinkage of credit." In one respect it may be suggested that he dismisses the difficulties of the situation too lightly. In arguing against those who recommend external devaluation of the dollar in order to place the United States on a more favourable competitive basis, he writes, "As soon as price levels in various foreign countries have been adjusted to their new levels of exchange rates, the competitive disadvantage to the United States will automatically disappear." But why is it the prices in the various foreign countries that will have to be so adjusted? If these were small and unimportant, his conclusion would no doubt hold. Otherwise may it not be that the prices in the United States and other gold countries will have to be adjusted (*downwards*) in proportion to the new high levels of *their* exchange rates? But such a downward course will intensify the process of contraction and liquidation in the gold countries which he desires to counteract. Professor Edie was writing before we had the experience of 1932 to suggest this alternative possibility.

Dr. Haberler's very interesting essay is on more theoretical lines. He writes in conclusion, "I beg you to suspend your final judgment until the case has been more fully presented to you." None the less it may be worth making some comments on the rough sketch of a theory that is before us, if for no other purpose than to secure that the fuller presentation will meet the difficulties of critics in advance.

Two points call for discussion; first, his doctrine of "relative inflation," and secondly his theory of the relation of the trade cycle to changes in the vertical structure of production. With regard to the first, Dr. Haberler criticises "traditional monetary theory" on the ground that its exponents commonly fail to "distinguish between a fall of prices which is *due to an actual contraction* of the circulating medium and a fall of prices which is caused by a *lowering of cost* as a consequence of inventions and

technological improvements." This is, of course, not a dichotomy. The fall may be due to an increased output of goods without technological improvements, or to factors which we may group together under the head of Velocity of Circulation. When Dr. Haberler uses the expression "relative inflation" on page 56, he seems to use it for *any* increase in the circulating medium not resulting in a rise of prices. But on previous pages he has only given reasons for supposing that that part of the increase which prevents prices falling *pari passu* with costs, and not that that part of the increase necessary to offset the other changes mentioned above, has effects analogous to those of absolute inflation (rise of prices). When he continues, "there is an obvious presumption that it was precisely this relative inflation [in the years 1924–8] which brought about all the trouble," it is hard to follow him. Relative inflation in the restricted sense, namely, that part of the increase which prevents prices falling with costs—and Dr. Haberler has so far given us no reason for supposing that any other is likely to cause trouble—may, when prices are stable, be measured by the rate at which average costs are falling. It is easy to obtain an exaggerated idea of the rate at which costs are falling by concentrating on a narrow range of remarkable technological achievements in productive processes. To obtain the rate of fall required in this context, it is necessary to take an average of costs in the whole range of production and distribution. Nor is it clear that we should confine ourselves to the United States. It would seem to be the average relative inflation (if any) in the whole gold-using world that is relevant to present world troubles. Even if Dr. Haberler confines his attention to costs in the United States, he will have difficulty in showing why a moderate relative inflation there should produce troubles so much more severe than greater absolute inflations have produced in the past.

The second topic for comment is Dr. Haberler's analysis of changes in the vertical structure of production. His treatment is so short that interpretation and criticism is in danger of being misapplied. He points out that during a period of forced saving productive processes tend to become more roundabout. This, however, is not a differentia of the inflationary period. Processes tend to become more roundabout whenever the rate of increase of savings exceeds the rate of increase of population, and this is the normal condition of modern industrial communities. Consequently Dr. Haberler is in error if he holds, as he seems to, that the end of a period of forced saving must be followed by a reversion

to less roundabout methods. What happens is that during the period of forced saving the rate at which processes become more roundabout increases, and thereafter this rate decreases. Dr. Haberler writes that after the period of forced saving, " the new roundabout ways of production . . . or at least part of them . . . will be discontinued." This may or may not happen. If if does, it will not be a mere consequence of the fact that forced saving has come to an end.

It is permissible to venture the question whether Dr. Haberler is not thinking of a cognate but different fact, which was known to, and much discussed by English writers on the post-1920 slump. When the rate at which processes become more roundabout is accelerated, or, to take a simpler condition, when the increase of output of consumable goods is accelerated, an abnormally large proportion of resources must (unless initially there was much fixed equipment lying idle) be devoted to the production of fixed equipment. When the acceleration comes to an end, the amount of resources so devoted is reduced. Difficulties will arise if the labour released by this reduction is immobile and if part of the resources so devoted themselves take the form of fixed equipment, for which an immediate use can no longer be found.

What then is the evil and what the good in the legacy of inflation? The evil is that blocks of labour may be segregated in occupations where it is no longer wanted, and that capital sunk in the constructional goods industries may no longer earn a profit. The good is that industry is better equipped with capital than if the inflation has not occurred. Dr. Haberler seems sometimes to write as if this second circumstance were not a good. Such a view is surely very paradoxical. A legacy is left consisting of a rich endowment of capital aids to production. It is as though a good fairy had touched the earth with her wand, leaving it more fertile. Will not workers in succeeding years be aided thereby? Even in the unlikely event of the rate of increase of saving falling below the growth of population in the succeeding epoch, and production tending to get less roundabout, this will only affect new equipment and will not debar workers from using existing equipment. Dr. Haberler almost seems to suggest that the inflationary period only leaves behind a programme of capitalistic production, forgetting that it leaves the capital also and that all the succeeding generation is asked to supply for carrying on the productive process is labour.

And what is the moral for the succeeding period? Let it

be granted that the evil of inflation exceeds the good. Let the succeeding generation eschew inflation. But it is surely important that then of all times the rate at which methods become more capitalistic should not be allowed to fall below its normal level through involuntary dis-saving. Yet it will, if the price level is allowed to fall by more than the cost of production. To prevent the price level falling more quickly than costs, it may be necessary to create a large increase in means of payment to offset rapid deceleration of circulation in a slump. Not only did the Federal Reserve system not pump in sufficient new money to achieve this object, but it allowed a considerable decrease in means of payment to occur.

To this volume is appended a list of recommendations signed by twenty-four economists, including Professors Viner and Williams, but not the other authors, on January 31, 1932. They urge—(1) an amendment to the Federal Reserve Act empowering the Board to permit the use of Government securities as a cover for notes during the emergency period [this was embodied in the Glass–Steagall Act]; (2) the open-market purchase of securities by the Federal Reserve system; (3) the vigorous and courageous extension of loans to banks by the Reconstruction Finance Corporation; (4) the maintenance by the Federal Government of its programme of public works and public services at a level not lower than in 1930–31; (5) the reduction or cancellation of inter-governmental debts, and (6) a reciprocal and substantial lowering of tariffs. May their memory be for ever blessed. R. F. HARROD

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Planned Money. By SIR BASIL P. BLACKETT. (London. Constable & Co. 1932. Pp. x + 194. 5*s*.)

HAVING begun with an interesting discussion on the necessity and scope of economic planning in modern society, Sir Basil Blackett proceeds to urge the adoption of a stable standard of value. He conducts his advocacy with admirable vigour and clarity, he stresses what is important, wastes little time over pettifoggers and cavillers, and presents the main outline of his plan in a readily comprehensible manner. This book, which is written in simple language for the general reader, should be of great educational value.

Of special interest are Sir Basil Blackett's views on the right

strategy for securing the ultimate objective. He holds that at the coming Conference the possibility of stabilising the value of gold should not be neglected. "The essential points are complete agreement between this country and the United States and determination and ability on both sides to keep gold prices stable" (after a preliminary reflation). However, "that the United States of America would be able and willing to enter into binding undertakings resolutely to put this policy into effect cannot be regarded as more than a possibility" (p. 133). Failing that, Great Britain should attempt to form a group of countries, each of which should take steps to raise prices and thereafter maintain stability in their own internal price-levels without attempting to resume the gold standard. Such a group might well comprise a very important proportion of the whole economic world. It would not set itself up in any spirit of hostility to the gold group, but must insist on retaining freedom to try out its own experiment. Great Britain would make no attempt to dominate the group, but the stabilisation of sterling would immensely facilitate the task confronting other stabilising countries.

Sir Basil Blackett gives welcome recognition to the view that even within the stabilising group internal stability and exchange stability might be incompatible and that internal stability is to be preferred. In criticism of the gold standard he writes that it "yokes together in an uncomfortable partnership individual economic units of which the pace and direction of development are dissimilar and divergent" (p. 172). However, in the immediate future, "some members would probably find that the best way of making their local currency a stable measure of value would be to keep it linked to sterling at a fixed ratio for long periods and not to contemplate any change in that ratio once established unless and until the pace and direction of their own economic development as compared with that of Great Britain made it clear that an adjustment up or down was required" (p. 145).

Sir Basil prefers a constant price-level to one falling in proportion to the increase of productivity per head. He holds that "an index-number framed on the lines of the existing Board of Trade index-number of wholesale prices would afford a reasonably satisfactory starting-point for purposes of maintaining a constant price-level" (p. 89). It would certainly be the simplest starting-point. It might be held that he does not do full justice to the view that for certain countries at certain times such a form of stability might have inflationary effects. This might be due

either to a failure of wages, etc. to rise as fast as productivity increases, or to a long-period downward trend in the equilibrium ratio between the price-level of staple goods, which are very prominent in an index-number of the type suggested, and the general price-level. As, however, Sir Basil allows some latitude to individual countries in the group, a modification of the definition of constant price-level to suit the needs of particular countries, provided that it was confined within certain limits, would not be inconsistent with his general plan.

It remains to consider what would happen to the gold value of the independent currencies. There would be some danger, especially in the reflationary period, that the independent currencies might get undervalued in terms of the gold currencies in the foreign exchange market. Sir Basil touches but does not elaborate this point. He writes, "it would be impossible to permit British capital to take part in a vigorous and unrestricted speculation in American dollar and other gold securities in anticipation of a fall in the exchange value of British sterling in terms of gold" (p. 168). This is so, not only on account of the temporary loss of capital, but also because under-valuation of the independent currencies might, like the present decline of sterling, tend to drag down gold prices still further and so to enhance the difficulties of gold countries, and an accentuation of the depression in those countries is bound to react adversely on the independent group. It is probable that the independent countries would do well to take rather vigorous defensive measures and mobilise their gold assets, in order to crush and kill bear speculators at the outset and on every occasion.

Sir Basil is optimistic about the power of the Central Bank to control the value of a currency by its rate of discount and open market operations (p. 109). His optimism may be justified when once the plan is at work and an upward or downward tendency can be countered promptly. But when the situation has got thoroughly out of hand, as at present, and it is a question of undertaking a great reflation, his optimism is much more open to question. Nor is it clear whether it is in principle right to replenish the flow of circulating medium *solely* by stimulating new investment. The alternative is the well-accredited plan of increasing the flow of money through the Exchequer. Sir Basil writes, "if the currency system is to satisfy public requirements, there must be no suspicion of its volume being liable to be arbitrarily increased to finance Government expenditure" (p. 103). This is quite true if the word "arbitrarily" is stressed. The

position is wholly different if the Finance Minister is *deliberately* endeavouring in co-operation with the Central Bank, to increase the flow of circulating medium. It is necessary that the public should have confidence that the Minister can and will check the flow when reflation is completed. The vigorous measures which Great Britain has recently taken to balance her budget puts her in a peculiarly favourable position to undertake deliberate reflation through the Exchequer without loss of confidence.

In view of the firm and unshakable foundations, fortified by logic and experience, on which Sir Basil is able to build his plan, some readers will regret that he seems to suggest in places an association between it and that aspect of the movement seeking expression at Ottawa which may be termed economic nationalism. It is a pity that the public should suppose his admirable schemes to be in any way connected either with vague and nebulous aspirations or with autarkish and predatory tendencies.

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The Crisis in the World's Monetary System. By GUSTAV CASSEL. (Clarendon Press. Pp. 98. 4*s.* 6*d.*)

THE delivery of a series of three lectures at Oxford last summer has given Professor Cassel an opportunity of fulfilling his function of instructing public opinion in the intricacies of economic theory, especially of monetary theory in their application to current events. This little book of just under 100 pages is the result. As admirers of Professor Cassel will expect, it is full of wisdom, expressed with an admirable clarity and simplicity.

He points out that so long as the policy of economising gold, recommended at the Genoa Conference, was carried out, it was possible to prevent any considerable rise in the value of gold. "The world reaped the fruits of this policy in an economic development in which most countries had their share and which for some countries meant a great deal of prosperity" (p. 27).

Progress up to 1928 was normally healthy; it was not more rapid than was usual in the pre-war period. It was interrupted in 1929 by the fall of prices, for which in Professor Cassel's view the responsibility rests on the central banks. "The course of a ship is doubtless the combined result of wind, current and navigation, and each of these factors could be quoted as independent causes of the result that the ship arrives at a certain place." But

it is navigation that is within human control, and consequently the responsibility rests on the captain. So a central bank, which has the monopoly of supplying the community with currency, bears the responsibility for variations in the value of the currency (pp. 46–7).

Under a gold standard the responsibility becomes international, but "if some important central banks follow a policy which must lead, say, to a violent increase in the value of gold, the behaviour of such banks must be regarded as the cause of this movement" (p. 48).

Professor Cassel further apportions a heavy share of the responsibility for the breakdown to war debts and reparations. "The payment of war debts in conjunction with the unwillingness to receive payment in the normal form of goods led to unreasonable demands on the world's monetary stocks; and the claimants failed to use in a proper way the gold that they had accumulated" (pp. 71–2).

Finally, for a remedy, "the best thing that the gold standard countries could do for a rapid economic recovery would be immediately to start an inflation of their currencies. If this inflation were the outcome of a deliberate and well-conceived policy it could be controlled, and the consequent rise of the general level of commodity prices could be kept within such limits as were deemed desirable for the restoration of a necessary equilibrium between different groups of prices, wages, and commercial debts" (p. 94).

R. G. Hawtrey

Workers' Emotions in Shop and Home: a study of individual workers from the psychological and physiological standpoint. By Rexford B. Hersey. (Philadelphia: University of Pennsylvania Press. 1932. Pp. xviii + 441. Price $3.)

This book is mainly the outcome of the author's intensive, individual study of twelve employees engaged in the repair of goods waggons and engines of the Pennsylvania Railroad. Like the work of Anderson, Mayo and others, it is a protest against the attempts of the efficiency engineer to increase production without reference to the psychology of the employee. "The world," says Professor Hersey, "is suffering from the efficiency complex and has forgotten that the purpose of production is the service of man." "The modern theory expects the worker to produce at full speed all the time he is in the plant." But "just as at times keen enjoyment is derived from intense activity, so on occasions

a feeling of comparative freedom is very delightful. . . . Fortunate then is the foreman or employer who can so arrange the work of his men that the petty, unscientific formula of keeping the men busy every moment they are in the shop can be discarded."

But to achieve this aim, it is not enough to study objective working conditions and to record mass observations: it must be recognised that the efficiency of the individual depends also on his relations with his co-workers, on conditions outside his work and on various "small" events—all affecting his "state of mind." It was with the object of demonstrating the importance of industrial relations and outside conditions, and of bringing to light the "little things," that the experiment described in this book was conducted.

The twelve men were chosen (together with five others, of whom we hear little) by their foremen as taking an average interest in their work and as being "normal," *i.e.* presenting no problems in personality and physique. Professor Hersey spent practically an entire year in their company, interviewing each of them daily every two hours at their work, twice in the morning and twice in the afternoon, obtaining every possible relevant information from their supervisors, and visiting them frequently in their homes after working hours. They are said to have realised sympathetically the object of his investigations and to have cooperated fully in describing and analysing their emotions, moods and behaviour. Professor Hersey obtained information as to their fluctuations in output in relation to their individual average, their varying success or failure at their work, absenteeism, sickness periods, accidents, breaches of discipline and occasions of quarrelsomeness. He gathered certain physiological observations on their physique, medical condition, weight, sleep, blood pressure, etc. And on the psychological side he had them tested for intelligence (verbal and practical), memory and mechanical ability; and he inquired daily into their dreams, bodily aches and pains, and their fleeting and diverse interests, worries, satisfactions, cheerfulness, hopefulness, and emotions of anger, fear, disgust, etc., observing the relation of such conditions to their workshop behaviour.

The last part of the book contains generalisations on the relations between emotion and productivity and between what the author terms "zest for activity" and physical condition. Here the author attempts to give numerical expression to the results of his individual observations and inquiries; and this must be regarded as the least reliable aspect of his research. He finds that,

under the influence of "positive" emotional influences output is on the average 8·5 per cent. greater than when it is under the influence of "negative" emotional conditions. Individual workers show, as we should expect, wide deviations from this average, varying between 22 and 2·1 per cent. It is of interest to note that whereas the "positive" emotions caused an average increase of 1·7 per cent., the "negative" emotions caused a far larger average decrease of 6·8 per cent., in relation to what "the workers considered their normal level." This phrase at once throws suspicion on the reliability of so conjectural an estimate of normal output; and this suspicion is not dispelled by the occurrence of an unvarying estimate (10 per cent.) several times in the book in such phrases as "his output was at least 10 per cent. above (or below) normal." But even if we doubt the reliability of such estimates, even if we complain of not being told what exactly is included under "positive" and "negative" emotions, we may nevertheless be disposed to accept the author's finding that in industrial conditions the "positive" emotions do not increase production as much as "negative" emotions diminish it.

Our doubts as to the accuracy of Professor Hersey's numerical data are not diminished when we bear in mind that the workers are said to have "co-operated fully" in estimating their own emotional states—so fully that of one worker it is remarked "the next day, Wednesday, he rated himself as half neutral plus and half pessimistic," or when we consider the possibilities of errors of report, and of "playing up to" the investigator, the complexity of conditions, the difficulties of "weighting" and the uncertainties of interpretation which must have beset Professor Hersey throughout his many hundreds of interviews with each of his subjects.

Nevertheless, most of his conclusions are probably correct enough. He finds, for example, that the workers' feelings of physical fitness are associated far more commonly with periods of increased production than are the opposite feelings of unfitness with periods of diminished production. He finds that their feelings of tiredness are far more often traceable to "outside" influences than to any other single cause, these influences including such disturbances as arise from loss of sleep, malnutrition, unwise recreation, family worries, etc. "All told, the employer would seem to be able to reach only half of the causes of fatigue by direct methods. We can, however, still look to the employer—and the physician—to take the lead in attempts to reduce the effect of the

non-plant causes." He finds that the workers' wives are "much more receptive to ideas coming from management than their husbands," and he suggests that, following the example of the Philadelphia Rapid Transit Company, addresses might well be delivered to wives at the annual picnic or other gatherings of a company's employees and their families, "showing them their rôle as controllers of the family finances, as definite causes of accidents through their nagging and their unwise demands on their husbands."

Finally, the author presents evidence of a regular rhythm occurring in emotional fluctuations, the span of which is, on the average, slightly more than six weeks, varying, however, in different persons from 3 to 9¼ weeks and deviating by about one week more or one week less than the average period at different times in the same person. Twenty-nine cases were studied (including twelve non-manual workers), the majority of them for one year, and the rest for slightly over four months. In every one of them these regularly recurrent fluctuations in "emotional tone" were discovered, varying in degree from elation and cheerfulness to apprehension and worry. Professor Hersey discusses many conceivable causes of this rhythm (the existence of which has been advanced by previous investigators), but without reaching any definite conclusion.

As has been said, it is easy to discuss the validity of the author's procedure in collecting and evaluating these and other data, but it is doubtful whether his conclusions are invalidated because of such criticism. His well-written and interesting book may be regarded as a pioneer effort in the technique which he employs. It remains for future workers to test his important conclusions by a similar or by a different, improved technique.

CHARLES S. MYERS

British Railways in Boom and Depression. By C. DOUGLAS CAMPBELL, Ph.D. (P. S. King and Son. Pp. 125. 6*s*.)

DR. CAMPBELL describes this book as "an essay in trade fluctuations and their effects 1878–1930." His aim has been to examine whether the reactions of the business cycle are more or less the same in the railway business—the biggest of British public utilities—as in other industries.

The first four chapters consist of an elaborate statistical investigation based upon the published accounts and statistics as shown in the Annual Railway Returns. The railways are examined as a whole in the first three chapters, whilst in the fourth

they are treated in the four main groups into which they were amalgamated under the Railways Act, 1921. The object of this second treatment was to ascertain whether the railways serving highly fluctuating trades, "such as engineering, shipbuilding, coal-mining, etc.," were more subject to fluctuations of profitability than those serving relatively stable trades, "such as agriculture and foodstuffs." This aspect could have been studied much more effectively by dealing with individual companies prior to the amalgamations. The author recognises this when he suggests that it might repay the managements to make analyses of their different areas, but he would have been more likely to convince them by a demonstration based upon the companies in the pre-war period. That there are cyclical fluctuations in profits, and that the "industrial systems" have been subject to greater fluctuations are established by the figures.

These though were well-known facts, and the question may be asked whether the author's investigations have materially enlarged our knowledge of them. The best has probably been done with the figures available, except in the respect already noted. The material though is so poor that the results can hardly fail to be disappointing. In the years 1901–1912 a sum of £1,000,000 is deducted each year on account of a change in the method of accounting total expenditure. This appears to be a solitary instance of correction. Yet every amalgamation throughout the whole period had its influence on the figures of tons of goods and numbers of passengers carried owing to the practice of through traffic being counted by each railway concerned in its carriage. Ton-mile and passenger-mile figures were not available until 1920. Profits are disclosed profits, and often differed widely from actual profits. The companies have always made a practice of spending generously out of revenue on renewals, replacements and improvements when times were prosperous, and curtailing such expenditure when trade was depressed. The actual variations must have been greater, possibly much greater than those disclosed. In this respect the figures of recent years may perhaps be more reliable than those for the first 30 years examined.

The last chapter consists of an examination of the Railways Act, 1921, in the light of the conclusion that railway profits and trade prosperity are connected. The result is a condemnation of the principle of the Standard Revenue as set out in the Act, a condemnation with which agreement would seem inevitable. The Railway Rates Tribunal is on the horns of a dilemma. "Either it must adjust rates to keep stability of net revenue, or it will

keep rates stable and allow net revenue to fluctuate." In the latter event, the terms of the Act are not being carried out; in the former, railway prices would move in the reverse direction to trade prices. The attempt to standardise railway rates has also been a failure, as shown by the rapidly falling percentage of traffic carried at the standard rates. Finally, Dr. Campbell concludes that the uniformity in the standard rates, which has been established, is incompatible with the principle of the standard net revenue, when the companies serve areas with such differing trade and traffic characteristics. All points to a revision of the Act being very necessary.

W. T. STEPHENSON

The Masquerade of Monopoly. By F. A. FETTER. (New York: Harcourt, Brace & Co. Pp. 470.)

JUDGE-BAITING has recently become quite a fashionable occupation among American economists, and in this very lively book Professor Fetter makes most devastating play among the decisions, under the various Anti-Trust Acts, of the Supreme Court of the United States. He is concerned to show that, in effect, the system of free competition is being whisked away under the very noses of the judges without their being acute enough to realise this, or imaginative enough to appreciate the important economic repercussions of all-pervading monopoly. He considers that the most potent weapon in the hands of the monopolist is price-discrimination, particularly that form of discrimination made famous by the "Pittsburgh-Plus" case; that an equitable and stable economic order can be based only upon a system of free competition, and that, in consequence, the law, the courts and administrative bodies, such as the Federal Trade Commission, must concentrate upon the elimination of the discriminating price system.

The book, which is rather unwieldy and diffuse in structure, consists of six parts. Part I is devoted to a study of conditions in the oil industry since the Standard Oil case of 1911. It criticises the reasoning of the judges in that case for their failure to make clear what was implied, in the economic sense, by the term "restraint of trade," and it makes the point, which other writers have stressed, that the dissolution of the Standard Oil interests under the 1911 decision seized the shadow but left the substance of monopoly. Nevertheless, as Professor Fetter admits, circumstances have restored competition in the oil industry and, although the widespread discovery of new oil-fields has been the

principal factor responsible, yet the 1911 decree of dissolution may have had its influence in bringing this about.

Part II constitutes a detailed study of the now famous Steel Corporation case of 1920 and, here again, the author very forcibly reveals the weaknesses in the economic knowledge and reasoning of those who were responsible for the majority opinion. He makes it clear that a new form of monopoly is growing up—one in which the principal concern in an industry is so large that the independents are only too willing to take the safe course and "come under the umbrella" of the combine's prices—of which the judges have not yet become aware. In the abandon of his vigorous attack, however, Professor Fetter seems to demand of members of the Supreme Court knowledge and depths of reasoning which can hardly be expected of any group of men. It is unfair to expect lawyers also to be trained economists. To state that "success cannot be achieved by the law without assistance from economic analysis" is to ignore the very different opinions which different economists can give upon the same question and to over-estimate the part that abstract economic analysis can play in the framing of decisions in practical affairs.

Part III consists of a very elaborate study of the "Pittsburgh-Plus" system, and Part IV of an account of the more famous of the Open-Price Association cases in which the conclusion is reached that in the activities of such associations can be discerned the monopolistic method of the basing-point price system. Part V deals with the true nature of competition and the tests which may be imposed to determine whether any system is truly competitive, and Part VI with methods by which the competitive regime might be restored in the United States.

Whilst undoubtedly Professor Fetter performs a service in making clear how pervasive monopoly has become, it is to be doubted whether price discrimination is so predominant a force as he believes or whether, indeed, the economic system is so simple in its operation as he premises. Competition certainly is not the frictionless and infallible corrective of economic disequilibrium which he imagines when he says, "Market competition is a peaceful and constructive process of rivalry in efficient production—it is ideally a process of trial, stimulation and selection by which each finds a fit place. Competitors unable to hold their own in one market may easily continue to sell in another, whilst others will find their greater gain by shifting to another occupation." Ruinous competition and the consequent instability, he seems to argue, can only appear through monopoly

action (p. 400 and p. 414). How then can he explain the ruinous competition in the cotton or bituminous coal industries of the United States? He apparently does not admit the chronic tendency of competition to produce surplus machine capacity and the problems raised by its presence, and he comes to the conclusion, with very little reliable information to go upon, that " (mergers) are not in economic quality the fittest to survive, and even those now existing must shrink to their due proportions when put to the test of competition in a fair field with no favour."

This over-simplification of the real issues in the provision of safeguards against monopoly is further shown in the remedies which Professor Fetter suggests for the restoration of competition. Discriminating prices constitute the heart of the monopoly problem, he urges, and in order to deal with this it will be sufficient for each factory to have a publicly posted price at which it will sell to all. But this " uniform mill-base price plan " patently leaves the way open for many forms of monopoly action. Uniform prices may be uniformly monopolistic. A concern with many factories might well exercise price discrimination by having different prices at its different factories. A public posted price would mean very little in industries, say cotton-weaving, in which the product is almost infinitely varied and changes from day to day. And, in any case, under a system of free competition as Professor Fetter envisages it, no seller can say at what price he will sell; this must be determined for each transaction by the higgling between seller and buyer.

The value of this volume consists, therefore, not so much in the solution it offers, as in the problem it so clearly and vividly raises : How will it ever be possible to frame and interpret laws, in a world in which commercial and economic units are so flexible in form, to produce the economic results in the control of monopoly which the State wishes to bring about? J. JEWKES

University of Manchester.

The Theory of Protection and International Trade. By MICHAIL MANOÏLESCO. (P. S. King & Son. 1931. Pp. xxxi + 262 12*s*. 6*d*.)

THE author of this book is a leading business man and has held the portfolio of Industry and Trade in Roumania. The book is ambitious, both in aim and in method; the greater part of it being concerned with a rigorous attempt—in which free use is made of algebraic equations, statistical verification and reference

to economic authority—to establish a scientific theory of protection. The author is not content, as most are, to explain the persistence of free-trade thought side by side with protectionist practice, upon realistic and somewhat cynical grounds. The justification of his scientific approach is, however, somewhat naïve, as may be judged from the propositions contained in the introduction to the English edition :

> "Either science is wrong in its basis, or history does not tell us the truth. Now, as history cannot lie, it is evident that science must be wrong."

The introduction referred to contains the gist of the author's argument, which is that manufactures are more "productive" than agriculture, and ought to be fostered in every country. He claims to have discovered not only a fundamental justification for tariff protection, true for all countries and for all times, but a reliable criterion by which such protection may be scientifically applied. The thesis is that competition based upon price comparisons cannot be trusted to bring about the most "productive" economic organisation within national units, "productivity" being defined as the value of product per unit of worker employed. An elaborate attack is made upon Ricardo's comparative cost reasoning; but the author is evidently not familiar with the modern elaboration of the theory at the hands of Taussig and his pupils. In an involved algebraic discussion he seeks to show that Ricardo's reasoning holds true only in the single case where the ratio of the productivities of agriculture and industry in the two countries concerned is equal in both cases to unity, or in other words where competition has brought about the optimum utilisation of resources within each national unit. This is, of course, the premiss upon which Ricardo reasoned and the admission that, given this premiss, the theory holds true, concedes the validity of Ricardo's reasoning.

The crux of M. Manoïlesco's argument, therefore, is his contention that competition fails to bring about the maximising of productivity, and this is no doubt true if one adopts the curious definition which he uses. Added value per worker employed is not, however, an adequate test of true productivity and the subsidising of those industries which show the greatest added value per worker would not lead to the greatest aggregate production.

The statistics used in this book are uncritical. No account is taken of differences of capital equipment, elasticities of demand,

limited markets, special skills, scales of organisation, etc., etc. The summary manner in which the author disposes (pp. 142–8) of the changes in price relations that would be caused by the application of his principle does not indicate an adequate appreciation of the complexity of the problem. His world, in which less effort is given to commerce, States become more self-sufficient, and all industrialise, would not maximise productivity; but would narrow the area of specialisation, reduce the scale of output, hamper efficiency in production and lower standards of living. For he is not content to argue the possibility of wise tariff protection snatching temporary national advantages from the inefficiencies of competition, but maintains his system as a permanent "scientific" improvement, rejecting as unscientific all such arguments as those of List.

There is included in the book a long and interesting tilt at what M. Manoïlesco calls the policy of the League of Nations. It is difficult to identify such a body as the League with a policy. Its decisions and pronouncements necessarily depend upon the judgment of ever-changing groups of national representatives upon its various committees. The criticism is really directed against the tenor of the discussions and resolutions at the World Economic Conference of 1927. The virtual unanimity of the large gathering of experts at that conference in advocating freer measures of international trade seems to M. Manoïlesco to have foundered against not only the hard facts of reviving economic nationalism, but also the true explanation of international trade. There is little doubt of the former, but few economists will agree that M. Manoïlesco has successfully demonstrated the latter.

J. B. Condliffe

Institutional Revenue. By H. D. Dickinson (London: Williams and Norgate, Ltd. 1932. Pp. 264. 10*s.* 6*d.*)

This is an interesting book containing some useful discussions, though it takes a long time getting to a point that is not after all very new. The main theme is that our social institutions have so developed as to provide certain privileged classes with an income, whether from salaries, fees or profits, greater than either their capacities or their services to the community would justify. Under conditions of equality of opportunity, the return on equal natural abilities would tend to be equal. But since the members of some classes start with advantages of background, nurture and education denied to their less fortunate fellows, they reap the

benefit of the restrictions so imposed in the form of a species of unearned increment which the writer terms "institutional revenue." He distinguishes five social strata or "non-competing groups": the upper, upper middle, lower middle, skilled working and unskilled working classes. Each of the higher groups enjoys a standard of living safeguarded by the fact that the groups below cannot effectively compete. Thus the professional man has nothing to fear from the manual worker, although every successful professional man is not necessarily more able or more industrious than every labourer. So also (though on this much less stress is laid) the skilled worker, protected by Trade Union regulations, need not fear the competition of the unskilled. Our laws of inheritance tend to make social advantage cumulative, so that in an individualist society the rich tend to become richer and the poor, at least relatively, poorer. The fortunes earned by exceptional individuals such as Charlie Chaplin, Caruso, and Mr. Bernard Shaw are not, however, due to any particular social institution, and are therefore classed as "rent of ability" and not as "institutional revenue." This distinction does not appear well-founded, since artists like other men are free to sell their services in the most favourable market, and it is doubtful whether they would be as well off financially in a non-individualist society.

Mr. Dickinson does not arrive at the discussion of these interesting topics until he has taken us through a great deal of preliminary matter, of which it must be said that for the beginner or the general reader the explanations are somewhat inadequate, while for the student with a grounding in economics they would appear superfluous. A good deal of the exposition is so much influenced by German thought that it has acquired some unnecessarily clumsy tricks and turns of phrase. There is no reason why expressions such as use-value, cost-goods, conjuncture-gains, and factor-distribution should displace their ordinary English equivalents, and it is difficult to see in "marginal buyer's subjective exchange-value" any improvement on "market value." Some of the exposition, moreover, suffers from a tendency to make comparatively easy matter obscure by means of explanation.

A more serious defect in so analytical a work is the absence of any attempt at explanation, historical or other, of our social organisation. To say that social inequalities are due to the individualist form of society does not shed much light on the matter, and possible biological explanations are mentioned only to be summarily dismissed. It is to be feared that Mr. Dickinson will convert none but the converted to his point of view.

A novel and useful feature of the book is an excellent summary or précis, recapitulating in thirty pages at the end of the volume the argument of nearly two hundred.

H. REYNARD

An Introduction to International Trade and Tariffs. By R. A. HODGSON. (London: Sir Isaac Pitman & Sons, Ltd. 1932. Pp. xiii + 191. 5*s*.)

THIS book can be recommended both to beginners of the study of Economics and to the general reader in search of light in matters of such immediate and vital interest. The arrangement is good, the exposition lucid and the treatment unexceptionable.

In Part I the reader is introduced to the meaning of International Trade, and to the elementary truth that every country normally gains by devoting itself to the production of those goods in which it has a differential advantage, while importing the others from countries with a similar policy. He is then shown the mechanism of international settlements and learns the complications introduced by the balance of trade, currency policies, monetary conditions, long-term loans and short-dated credits. The subsequent chapters discuss Protection and Free Trade and conclude that while there is no difficulty in coming to a decision on purely economic grounds—a decision implicit in the previous arguments—" the difficulty lies in the fact that arguments for protection appeal in the last resort to other than economic criteria."

Part II deals with some technical aspects of Tariffs, classifies them according as they are intended for a source of revenue or a means of protection, and explains different forms, types and developments. The two final chapters, which are devoted to the problems of tariff-making and tariff-working, give the reader a good idea of the complexity of the subject. Mr. Hodgson can be congratulated on producing an up-to-date volume which gives all relevant facts with complete impartiality, in readable form.

H. REYNARD

Profits or Prosperity? By HENRY PRATT FAIRCHILD, Professor of Sociology, New York University. (Harper & Bros., 1932. Pp. 204.)

IN his *Review of Economic Theory* (p. 312), Professor Edwin Cannan criticises American economists for segregating managerial earnings and interest from the concept of profit. " Then, forgetting the metaphysicians who searched in a dark room for a black

hat which was not there, they have exhausted themselves in efforts to discover what is left in 'profit.'" In this forceful language, Professor Cannan issued a challenge to American economists—a challenge which has not yet been accepted. That the search in the dark room has actually met with partial success is attested by the articles of C. A. Tuttle, by F. H. Knight's *Risk, Uncertainty, and Profit,* and more specifically by A. E. Monroe's recent *Value and Income.* However, none of these writings contains the complete picture—none of them exhausts the possible ramifications of their propositions. Professor Fairchild's book, devoted primarily to the discussion of profit in its practical aspects, goes further than any previous American work towards meeting the challenge thrown down by Professor Cannan.

Unfortunately, this book, by a sociologist rather than an economist, is cast in the form of "simply another discussion" of the current depression, and is designed for the popular reader. Many of its propositions are superficial; some of its arguments are unsound. These, however, are essentially inconsequential. For in a deep under-current of fundamental reasoning beneath the hasty and often flippant analysis, lies a distinct theory of profit. This theory is gradually becoming familiar to American economists, but has received little or no attention elsewhere. It is in the presentation of this theory that we find the real significance of the book.

In Professor Fairchild's opinion, interest includes all return upon capital investment, whether owned by an obvious capitalist or by an entrepreneur. Rent includes the return to all land. Wages include the return to all efforts, physical or mental, managerial or subservient. Risk is shared by all, and hence is not the occasion for the existence of any specific share. If this analysis be approached from the standpoint of the classical tradition, then Professor Cannan would be correct in asserting that Professor Fairchild has left nothing in the concept. Mill had defined profit as being composed of interest, wages of superintendence, and the reward for risk-bearing. None of these, surely, is left in profit by Fairchild. But, says the latter, the entrepreneur has one true and characteristic function: ownership. And profit is the reward of ownership. "The only reason why profits have been such a confused and undecipherable feature of economic analysis is that economists have failed so utterly to distinguish and understand ownership. Once grasp the concept of ownership, and the meaning of profits becomes perfectly clear" (p. 49). In order to make plain this concept of ownership, we

may imagine a firm in which the entrepreneur borrows all of the capital, rents the land, and pays himself a salary for his efforts, such salary to be determined according to competitive community standards. After all interest, rent, and wage payments are made, there still remains a residual amount, *profit.* This is retained by the entrepreneur simply because it comes to him as *owner* of the business. He did not own the factors which make up the business, but he does own the business itself. Hence he owns the products of the business until they are sold, and retains as his profit that part of the selling price which he is not obliged to pay out in return for the factors of production. Since the entrepreneur's skill and efforts are paid in wages, and since the risk of the business is borne by the receiver of interest, it follows that profit, as so defined, is the product of conjecture, and accrues to the entrepreneur solely because of his ownership.

The real significance of this theory can now be seen. In the light of Professor Fairchild's definition, profit has less relation to " incentive " than is generally supposed. The high wages accruing to great managerial skill, and not profit, induce capable men to participate in progressive business. Rather than being an individual reward, profit is dependent upon an ever-widening market, or upon a fortunate reduction in the " overhead costs " of doing business. It is an unearned surplus, obtained because market price can be kept above normal price. It is *not* a true share in the distribution of wealth, since it exists only in a particular dynamic economy, and constantly tends to disappear.

Professor Fairchild does not present a careful nor an exhaustive analysis of his proposition. The popular purpose of his book precludes such an attempt. But enough is given to be exceedingly stimulating and suggestive. More than that, it states in general terms the direction in which American profit theory is unmistakeably tending. Clearly, we can not yet be sure that the dark room does not contain a black hat, after all.

William S. Hopkins

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The A B C of Technocracy. By F. Arkright. (Hamish Hamilton. Pp. 96. 1*s.* 6*d.*)

It is impossible to derive from this book any idea as to what the plan called Technocracy proposes to do. In a mass of vague general statements there seem to be two nuclei. First, that a ton of coal is always a ton, while the value of a dollar changes.

A ton of coal is always a ton so long as it is useless; it is no sooner put to use than it loses weight in combustion. Second, that machine power is increasing at a very rapid rate, and is disemploying men. Reference to Mr. David Wells' *Recent Economic Changes,* written in 1889, will show the antiquity of this scare. "According to the U.S. Bureau of Labour, the gain in the power of production in some of the leading industries in the United States during the past fifteen or twenty years, as measured by the displacement of the muscular labour formerly employed to effect a given result has been as follows: in the manufacture of agricultural implements, from 50 to 70 per cent.; in the manufacture of shoes, 80 per cent.; in the manufacture of carriages, 65 per cent.; in the manufacture of machines and machinery, 40 per cent." "For 1870, the number of hands employed to every 1000 tons capacity entered or cleared of the British steam mercantile marine is reported to have been 47, but in 1885 it was only 27, or 70 per cent. more manual labour was required in 1870 than in 1885 to do the same work." Sir Lyon Playfair is quoted to the effect that at that time "a small cake of coal which would pass through a ring the size of a shilling, when burned in the compound engine of a modern steamboat, would drive a ton of food and its proportion of the ship two miles on its way to a foreign port." "Another calculator has computed that half a sheet of note-paper will develop sufficient power, when burned in connection with the triple-expansion engine, to carry a ton a mile in an Atlantic steamer." "Two thousand pounds of coal, iron, wheat, or cotton can now be carried on the best managed railroads for a mile for a sum so small that, outside of China, it would be difficult to find a coin of equivalent value to give to a boy as a reward for carrying an ounce package across a street." "In the manufacture of flour there has been a displacement of nearly three-fourths of the manual labour necessary to produce the same product." Mr. Wells' book is full of this record of mechanical development. But in 1890 the rate of unemployment in England was at its minimum of 2 per cent. From 1860 to 1913 unemployment had an upward trend at the rate of one point in fifty years, and from 1886 to 1913 the trend was level. D. H. MACGREGOR

Is Capitalism Doomed? By LAWRENCE DENNIS. (Harper Brothers. 1932. Pp. 328.)

MR. DENNIS believes that capitalism, though unquestionably past its prime, might enjoy quite a pleasant old age if it would

but have the sense to shed its peculiar vices. Whether it will, in fact, have that sense he regards as more than a little doubtful.

The radical vice of capitalism Mr. Dennis finds in its liability to get into debt. The argument is as follows. Any interest-bearing debt, if compounded over a sufficiently long period of time, must reach fantastic figures. But the production of goods cannot increase in an equally rapid ratio; therefore the total volume of outstanding debt becomes periodically unendurable, and we have credit crises and their consequent depressions. The argument applies alike to the consumer, who, overwhelmed with the instalments due on past purchases, must presently cease from buying anything further; to the farmers ruined by mortgages and by the good intentions of boards and banks specialising in agricultural credit and tumbling over one another in their anxiety to lead him into yet more debt; and, most of all, to the debts of nations. Indeed, on the subject of international loans Mr. Dennis has particularly strong views. A great part of the book is devoted to an attempt to show that these are always injurious, even when of the type ordinarily called productive; for the author knows "no reason for supposing that the farther away investors and directors are from their properties, the wiser and more competent will be their management."

Next to getting into debt, comes speculation in Mr. Dennis' list of the vices of capitalism. And here the recent history of American banks and American stock markets offers him ample material. The chapters which deal with this are among the most interesting in the book. The author's essential theory is that, since speculation is only gambling, there is no net income to be made out of it. "Judicious" investment is always exactly cancelled by injudicious, and the investor should therefore confine his attention to spreading his eggs over a sufficiently large number of baskets to ensure that he gets what is all he ever can get in the long run, *viz.* the average rate of return to all capital, put by Mr. Dennis at 3 per cent.

In short, Mr. Dennis' book may be summarised as: live within your income, spend what you have, and keep yourself to yourself. Interpreted in terms of practical policies, this means—protect home industries; stop foreign lending, and indeed keep out of all so-called international co-operation (except when it is concerned strictly with the interchange of goods for goods on income account), since in the absence of some great spiritual idea internationalist enthusiasm is only sound and fury, more likely than not to land you in the war which Mr. Dennis believes is just round the corner:

print non-interest-bearing paper to finance social services and public works and set the wheels of industry going again; and tax the rich to prevent them trying to accumulate impossible compound-interest fortunes—a programme not without merits, perhaps, but surely one rather oddly conceived as a means of prolonging the life of the capitalist system!

BARBARA WOOTTON

Methods of Social Study. By SIDNEY and BEATRICE WEBB. (Longmans, Green and Co. 1932. Pp. 260. 8*s*. 6*d*.)

WHO can be better qualified than Mr. and Mrs. Webb to speak of the most effective methods of social study? Take away what the Webbs have written on the social institutions of our country, and what remains? How many of the commonplaces of modern studies of English Trade Unionism or Local Government are not themselves original discoveries of the Webbs' indefatigable researches?

It is thus with great interest that the student of to-day will approach this book, in which the authors look back on the magnificent achievements of two lifetimes and give their estimate of the value of the tools which they have chiefly employed. There is, perhaps, as indeed might be expected, little that is strikingly new in what they have to say; but here, in abundant measure, is good advice adorned with many a delightful personal anecdote, as well as loaded with the weight of unique experience. The student who embarks on social inquiries is cautioned to look to his own mental equipment: he must train his faculty of attention, realise that in the mere framing of a question there lurks some anticipation of the answer, learn how to throw his own bias out of gear, and at the same time cultivate sympathetic understanding of those with whom his work brings him into contact. He must not (even if he has been educated at a public school and university) despise accuracy of detail, or laborious compilation, or careful choice of the right system of note-taking, because he prefers to deal only in brilliant, but inadequately-supported, generalisations. At the same time, he must learn the art of presenting the results of his researches; nor must diffidence or dilatoriness make him delay publication of what he has done, so that this may have the widest possible chance of confirmation or refutation. He must learn to draw on many different sources—the relevant documents, literature and statistical material, not to mention the personal interview and his own participation in the life of whatever institution he is studying. He must learn, further, to assess the value

of these various forms of evidence. (The authors, incidentally, have some interesting comments to make on the worth of the vast mass of oral evidence given before Royal Commissions and Committees of Inquiry, with its bland indifference to the accumulation of fact and its partiality for eliciting the generalised opinions of witnesses on large topics.) And the student must avail himself of every opportunity for verification at all stages of his work, not despising for this purpose those "unconscious experiments" which the legislator and the administrator are making every day.

In a final chapter the authors express their conviction that the truly scientific study of social institutions is possible, and that, while the emotions rather than the intellect must decide the desirable ends of life, such a study is and has been a most potent instrument of human betterment. Perhaps the reviewer's best comment on the book is to reflect how much human misery might have been avoided had we but on the one hand more investigators willing to practise what the Webbs have both practised and preached with such splendid consistency, and on the other hand administrators with an ear less deaf to the results of investigations conducted in this spirit. BARBARA WOOTTON

I Fondamenti della Economia Corporativa. By PROFESSOR UGO SPIRITO. (Milan, Treves. 1932. Pp. 279.)

Lineamenti di Politica Economica Corporativa, Vol. I. By PROFESSOR LELLO GANGEMI. (Catania, Studio Editoriale Moderno. 1932. Pp. xxiii + 467.)

AGAINST the grey monotonous background of Capitalism in Depression, any variation in colour catches the eye. Both the Black Shirt and the Red Flag, seen from afar, proclaim their own originality and stir our curiosity and our hopes.

Between Fascist Italy and Soviet Russia there are resemblances, which the spokesmen of each are eager to minimise, but there are also obvious differences. "Our practice has gone ahead of our theory," a Soviet economist told me last summer, when I was asking questions concerning the theoretical basis of the Soviet Planned Economy. In Fascist Italy the reverse is true. There is, indeed, much visible evidence of a strong and persistent drive from the centre in economic affairs; in the policy of State-controlled development by means of public works, for example. But, in the creation of the distinctive institutions of the Corporative State, the pace is slow. The new building of the Ministry of Corporations, architecturally one of the best modern buildings in Rome, is only just completed. But it is

well in advance of the Corporations which it is to administer. For these, even in the eleventh year of the Fascist era, are still in an incipient stage. In this work of construction, I was informed by Mussolini himself, " we are proceeding with great prudence " and " not for several years " is the network of new institutions likely to be completed. The National Council of Corporations, indeed, exists already. But it has been born before the separate Corporations which it is designed to integrate, for of these only the Corporation of the Theatre (not including the Cinema) has so far come into being.

The theory of the Corporative State, on the other hand, has already a large literature in Italy. But much of this belongs to political theory and to jurisprudence rather than to economics, as commonly delimited by English writers.

Professor Spirito of the University of Pisa has the reputation of being on the left wing of Fascism. His approach to economics is through philosophy. In his *Fondamenti della Economia Corporativa* he starts from the proposition that in every social science the fundamental conception is that of the State. He argues that classical economics, basing itself on the " closed egoism of the individual," is not scientific at all, or is, at best, " the science of anarchy." The State must guide and discipline individual interests, and it is the task of Corporative Theory to formulate the principles of such State action. Traditional private enterprise, equally with traditional Socialism, are rejected, the latter because the bureaucratic administration of industry " mortifies individual activity and tends to become static and conservative," and because the State is falsely conceived by Socialists as an entity separate from the individuals composing it. Professor Spirito then passes to an elaborate discussion, the upshot of which is that, within the framework of Corporative institutions, it is impossible to find an individual who is governed without being also a governor, and hence that the individual, " in so far as he is a social animal," can be identified with the State. It follows that there can be no disharmony between the interest of the individual and the interest of the State. Italian Fascism traces back its ancestry to Ancient Rome, and we may likewise trace back this comforting doctrine to Marcus Aurelius, who, in the Fifth Book of his Meditations, says: " That which does not hurt the city or body politic cannot hurt the citizen. Therefore when you think you are ill-used, let this reflection be your remedy. If the community is not the worse for it, neither am I."

But Professor Gangemi is not convinced. In his *Lineamenti di Politica Economica Corporativa,* of which only the first volume is yet published, he defends the classical economists, and their successors, against Professor Spirito's attack and rejects his identification of State and individual, as being "obviously absurd," "in conflict with reality," and rendering impossible any sensible criterion of State intervention.

This, indeed, is a more concrete book and shows a wider range of economic reading. (Professor Gangemi not only teaches economics at the University of Perugia, but is in charge of the admirable library of the Ministry of Finance at Rome.) All Fascist economists, in making the case for the Corporative State, must denounce both Socialism and Individualism. But whereas Professor Spirito rebukes Socialism a little and Individualism much, Professor Gangemi reverses the emphasis. He has been a pupil of Pantaleoni, to whom Fascism came only as a revelation in his old age.

Professor Gangemi holds that the principles of action of the Corporative State are to increase production and economic efficiency, to encourage and guide the rationalisation of industry, to promote the collaboration of employers and workers, each organised in appropriate associations, to reconcile the interests of different classes, to assist national development, especially by way of land reclamation and public works, and to prevent an excessive industrialisation of the country. He gives illustrations of Fascist policy under each of these heads and studies in some detail the provisions of the Carta del Lavoro of 1927, under which strikes and lock-outs are made illegal, and collective labour contracts are drawn up and enforced by the Magistracy of Labour. Fascism, he argues, is empirical and pragmatist. It is unhampered by any fixed doctrines, beyond those laid down, in very general terms, in the Carta del Lavoro. His book contains, perhaps, too many and too lengthy quotations from other writers, and suffers a little from repetition. But it is vigorously written and gives an interesting picture both of the mentality of Italian Fascism and of its claims to achievement.

HUGH DALTON

The Industrial Revolution in Scotland. By HENRY HAMILTON. (Oxford. 1932. Pp. ix + 300, with 8 plates and a map.)

VARIOUS studies of the Industrial Revolution in England have made its chief aspects well known. This cannot be said of the same period in Scotland, unless (as has been often assumed) it is

believed that the course of events in the North was similar to that in the South, and that all that is required, as regards Scotland, is to supply local illustrations of a general historical plan which has been already worked out. To some extent there are features common to the Revolution in both countries (and here Dr. Hamilton is already covering well-trodden ground), but in other respects there were important and significant differences, and it is in the tracing of these that the great value of Dr. Hamilton's book is to be found. One imagines that to many readers the volume will be more interesting and stimulating by omitting the characteristics common to this period of change both north and south of the Border and concentrating on what is new and Scottish. Indeed, from this point of view it might be said that "the half is greater than the whole."

The main reason that the Industrial Revolution assumed a somewhat different form in Scotland was the later economic development of that country. Hence, as might be expected, the "timing" of events was of a different order, or, as Dr. Hamilton puts it, there were two stages—the first from 1780 to 1830 and the second from the 'thirties of the nineteenth century, extending till about 1880. One may perhaps hazard the suggestion that it is possible the period 1880 to 1920 does not represent comparative stability; quite possibly there may be changes of sufficient magnitude in the generation after 1920 to be termed a century hence yet another Revolution, if that term is then in use.

However, going back to the first stage placed in the period 1780 to 1830, this again had two subdivisions—the agricultural and the industrial. As late as the time of Adam Smith, agriculture was astonishingly backward—the infield and outfield system was prevalent, often land "barely returned the seed, after which it relapsed into a state of sterility producing little else than thistles and other weeds." By the end of the century there was a remarkable improvement, and scientific ideas were being eagerly sought and applied, though necessarily this process was limited by the state of knowledge at the time.

Turning to industry, the Scottish position was unique. Before the Union of 1707, overseas trade was comparatively small: afterwards the opening of trade with the Plantations produced a great variety of industries to supply the needs of the colonists, while immense quantities of tobacco were imported, by far the larger part of which was re-exported. The tobacco trade brought great prosperity to the country, particularly to the West. The American Revolution completely upset this basis of Scottish

commerce. Therefore the capital accumulated had to find new openings and the mechanical discoveries gave it the necessary outlet. This was primarily in the textile industries. Though marine engineering was beginning early in the nineteenth century, the iron and steel industries were backward. In 1806 only 23,240 tons of pig iron were produced. In 1828 production had increased by 56 per cent., but during the same interval the increase in England and Wales was 200 per cent. Scottish coal was imperfect for smelting, but the discoveries of Musket and Neilson (the latter in 1828) at length enabled the industry to advance, and it was this change, leading to the preponderance of the heavy industries—iron, steel, engineering and shipbuilding—which marks Dr. Hamilton's second stage of the Scottish Industrial Revolution. This word is not a very satisfactory one. It served Toynbee well as a striking term to rivet his reader's attention on an aspect of industrial history which he wished to make prominent. The more it is studied the less specialist students are satisfied with it. What it really seems to mean is that, once modern economic conditions came into operation, the writer concentrates on the changes in a particular period, and one finds special emphasis on those in which he is most interested. Thus Dr. Hamilton has many striking pages on combination in the coal and iron trades. These are of special value as being based on the manuscript records of firms which still survive.

This book is a most desirable addition to the competent studies of various phases of Scottish economic history. It is of high value as affording a companion picture to the same period in England; still more interesting is it, if one allows for the "lag" in Scottish development to make the comparison, not at the same date but at the same *stage* in the two movements. It may be that Dr. Hamilton has been too much impressed, and has followed too closely the form of the English Revolution. It seems impossible to treat at all adequately the work of the Commissioners under the Acts 13 Geo. I c. 26 and c. 30 unless account is taken of fisheries as well as manufactures, indeed reference to the making of salt for the former industry would link up with much in the history of the coal trade in the eighteenth century. Further, it is probable that an investigation of the very great range of a series of Estate Papers, which have been recently deposited at the Register House, would have given many details about agriculture and possibly some altogether new light on its development—all the more as these MSS. relate to an area which is not well represented in the particulars given in the book. Then, too, there is only bare

mention of the woollen industry. Yet it had been important before the Union, being then the chief of Scottish exports. It again became prominent in Dr. Hamilton's second phase, *i.e.* that from about 1830 to 1880. This, in its turn, reflects back on sheep-farming. It is worth inquiring whether this is another instance of a species of correlation between a state of war and new industrial developments in Scotland. The case of the American Revolution has already been mentioned. The great impetus to Scottish shipbuilding is attributed to the building of blockade runners during the American Civil War. The Napoleonic wars occasioned a great extension of sheep-farming, but was the wool manufactured in Scotland or was it used to supplement the supplies for English factories? Even in the latter case, and if the Scottish woollen trade was developed later, the fact of an abundant supply of native raw material cannot be overlooked.

W. R. SCOTT

The Company of Scotland Trading to Africa and the Indies. By GEORGE PRATT INSH. (London: Scribner. 1932. Pp. 343. 12*s*. 6*d*. net.)

DR. INSH, by his edition of the *Darien Shipping Papers* and by his book on the earlier Scottish colonial schemes, has already established his position as the leading authority on Scottish colonial history. A general account of the Darien Company from his pen is therefore welcome, and the more so because it surveys a good deal of matter which either has not previously been used at all or has appeared only in comparatively inaccessible publications. Among materials of the latter type are the correspondence of James Balfour and the Spanish documents from Seville, of the former type the notes of Captain Campbell of Fonab on the engagement at Toubacanti. An allusion in the preface to "a very large collection of unbound papers relating to the company, discovered in the spring of 1929 by Dr. W. H. Meikle" in the National Library of Scotland, raises expectations which are hardly fulfilled. The most novel of them seems to be the profit and loss account of the voyage of the *African Merchant* in 1699–1700, which brought back the last gold to be coined in the Scottish mint; and I cannot help thinking that these papers may have remained unbound because they were essentially less important than the bound manuscript collection in the same library used by Professor Scott in his *Joint-Stock Companies*.

Dr. Insh's purpose in this book is not to write the economic history of the company but *l'histoire intégrale*. It is meant for

a popular audience, and it makes full use of the dramatic and romantic possibilities of the theme. Indeed it is written in the coloured manner which is fashionable now; so much so that one chapter actually begins with the solitary horseman *motif*: "On a spring day in the year 1698 a traveller, whose dark, weathered countenance spoke of long exposure," and so on. For our present purpose this aspect of the book is, however, not irrelevant, for the whole calamitous history of the company turns on the irruption of human passions, especially national feeling, into a business affair. Dr. Insh emphasises the importance of the fact that the company originated not in a project of William Paterson but in the persistent campaign of a group of traders, which, although it included a number of Scotsmen, was a London group. They wanted to use Scotland as a base for evading the East India Company's monopoly. They meant, by means of the political independence of Scotland to make a freer use of their capital. When that attempt was frustrated by the English Parliament, the chances of real success were ended. The attempt to raise capital in Amsterdam could not have succeeded unless the Dutch had been sure that they were not being invited to finance a competitor to their own East India Company. In Hamburg the hostility of the British resident may have been one of the causes of failure; but it might have been foreseen. William III was an Englishman and a Dutchman and the Spaniards were at war as his allies: he had three national reasons for checking the Scottish plans. Unhappily they had enlisted the support of far more capital than Scotland could afford to mobilise for a maritime undertaking. The patriotic feeling which had been worked up to raise the money became angrier and more ambitious with each reverse. The Darien expeditions miserably failed. With the single exception of the *African Merchant*, every venture of the company was disastrous. The last scenes touched the depths. Because the *Annandale* had been lawfully if harshly seized in England, and because Scottish feeling was exasperated about political matters, three innocent Englishmen of the *Worcester* were made the victims of a foul judicial murder in Edinburgh. The wretched history ended when the English taxpayers made good their losses to the stockholders in Scotland.

Dr. Insh has more sympathy with the patriotic feelings of the Scots at that time than most of his readers are likely to feel; but that can scarcely be reckoned a fault. Without some degree of sympathetic understanding the story would not have been intelligible: the Scots would merely have seemed, as they did

to William III, "like madmen." In some points of minor detail corrections may be offered. For instance, several copies of a proclamation which he regards (p. 60) as probably unique seem to be catalogued in Steele and Crawford's *Tudor and Stuart Proclamations*. But the book is well-informed and amply fulfils its purpose.

G. N. CLARK

Economics in the Twentieth Century; the History of its International Development. By THEO SURANYI-UNGER. Translated by NOEL D. MOULTON. (Allen and Unwin. 1932. Pp. xix + 397. 21*s*.)

THIS is a somewhat stupendous and overwhelming work. Professor Suranyi-Unger, who is a Hungarian writer, has here sifted, arranged and catalogued the economic literature of the greater part of the world during the first quarter of the present century, and if this book achieves nothing else, it will at least convince even the most learned of its readers that he is in reality but an ignorant and unprofitable economist. It will also leave him wondering how it is possible for one frail man, within the ordinary limits of human life, to achieve such a work as this. Professor Suranyi-Unger is doubtless right in suggesting that there is insufficient co-ordination between the thought and speculation of different nations and but a vague idea (subject to a considerable time-lag) as to what is being done elsewhere, so that, as he puts it, each group "proceeds under lock and key, and without an appreciable regard for the achievements attained by the others." Latin and Anglo-Saxon scholars, in our author's view, are chiefly open to this reproach, tending to live "in complacent seclusion, almost untouched by foreign influences." That there is such a seclusion, few would deny. That it is "complacent" is by no means so obvious. Heaven knows, the scholars of any country have enough to do to pant despairingly behind the mass production of the printing-press in their own territory, and if they do this with some approach to conscientiousness, they will find little time to make themselves familiar with the many regiments of works whose appearance is chronicled in foreign journals. Yet the resulting isolation, such as it may be, need not be complacent; it may be accompanied by a gnawing consciousness of duty unfulfilled, or by a keen regret that books, following Malthusian principles, seem to have a capacity to beget books in geometrical progression, while the preventive checks, even in periods of industrial depression, are deplorably feeble. Perhaps the highest level of general knowledge of what is being

written everywhere is to be found in such a country as Holland, where, the native output being necessarily limited, there is time to cultivate at least a bowing acquaintance with the best and most stimulating writings everywhere.

If Professor Suranyi-Unger's book will not in itself enable us to overcome our ignorance, it will at least point out to the anxious the right way towards a removal of this reproach. His own interest is primarily in the purest of pure economics; and in his other great work, *Philosophie in der Volkswirthschaftslehre,* he gave in a series of studies an excellent account of the philosophic basis of economic theory in a number of leading writers from Plato to Karl Marx. His philosophic predilections reappear in the present work, firstly in an introductory chapter on the philosophic sources of recent economic tendencies, and, secondly, in the limitations imposed on the scope of his discussion. It is in theory, in the systematic statement of economic principles, in "systembildende Gedanken" that Professor Suranyi-Unger is primarily interested, and consequently there is no direct discussion of such questions as the theory of money or of the trade cycle. There is also, on different grounds, a further limitation of a geographical nature. The main discussion is restricted to three groups of countries, the German-speaking, the Romance (France and Italy) and Anglo-Saxon countries (meaning Britain and America). As, however, authors who have been translated into other languages are regarded as having been given a right of entry, the net is spread somewhat wider to include such writers as Cassel and Pierson.

With regard to the main part of the work, it is impossible to do more than report the achievement of Professor Suranyi-Unger. In these three Parts (dealing with German, Romance and Anglo-Saxon countries), he observes a uniform sequence of treatment, resulting in five corresponding chapters in each of the sections. There is first of all a chapter devoted to Method. The second chapter, which in each case is probably the most valuable, is concerned with "systembildende Gedanken," the fundamental thoughts of those who have written stately principles. Then there follow three chapters on less comprehensive points, dealing with questions of Value, of Price and of Distribution.

Into this framework Professor Suranyi-Unger has compressed a minute analysis of all that has been said and thought in the sphere of pure economics during the first quarter of the twentieth century. It is scarcely an exaggeration to say that he misses nothing. One expects a discussion of the giants,—of Schumpeter,

Liefmann, Spann, Diehl and Oppenheimer and other stars of the first magnitude,—but Professor Suranyi-Unger tracks down the least significant book, annotating even the text-books of the period. The references alone cover 45 pages. The index of names runs to over eight pages, closely printed in three columns. This, in a sense, indicates at once the strength and the weakness of the book. From one point of view he refers to too many minnows in the economic pond, to writers of whom one may confess without shame that one has never heard, to others who are already forgotten. And the consequence of this comprehensiveness is that Professor Suranyi-Unger has too frequently left himself insufficient space to say anything that is worth saying. He classifies this great multitude no man could number, summarising in a line a book or an argument in an economic journal. It follows that this is pre-eminently not a book to read. On the other hand, if used as a book of reference or as a guide, it may be of the greatest service. Here, with the help of the Index and the Notes, is an international economic "Who's Who," covering all authors of the last thirty years,—or if not all, at least all who are given to "systembildende Gedanken." For the restrictions imposed on the subject-matter produce strange results. While it would be inexpedient to exemplify how far down in the scale of eminence the Index descends, at the other end there is no mention of Mr. Cole or of Sir Josiah Stamp. Professor Suranyi-Unger modestly realises the limitations which are inherent in the nature of this work and expresses the hope that the historian of the future will find it useful as a book of reference for the period which it covers. It will indeed be to him a crowning mercy, for here he will find good measure, pressed down and running over. But the book is not merely a guide for the future historian whom we may leave to look after himself. For all who are conscious of ignorance as to the development of thought in other countries and who wish to rectify their shortcomings, Professor Suranyi-Unger's guide-book will provide an excellent series of pointers as to how he ought to set about his task. ALEXANDER GRAY

Marischal College,
Aberdeen.

Problems of Population. Edited by G. H. L. F. PITT-RIVERS. (London: George Allen & Unwin, Ltd. Pp. 378.)

THIS volume is the Report of the Proceedings of the Second General Assembly of the International Union for the Scientific

Investigation of Population Problems which was held in London in 1931. The papers read fall under five heads, and there are also reports of the national committees and the research committees. It is evident that the latter have disposed of their limited funds to subsidise some useful pieces of research. The papers cover a very wide field and vary much in quality. They also vary in style of presentation; some are so briefly summarised that it is difficult to extract much from them. A few papers contain original material of value, but most of them are either in the nature of general discussions or of summaries of work published elsewhere.

A. M. CARR-SAUNDERS

Honest Doubt. By SIR ERNEST BENN. (Benn. 1932. Pp. 248. 6*s*.)

THE views of Sir Ernest Benn are well known. They are reiterated in this book with all the simplicity and fervour of conviction which his earlier writings have led his readers to expect. Once more we learn that the English (bar their politicians) are the natural leaders of the world; that we have gone wrong only because we have handed over affairs of State to people with no idea of money; that capitalism, far from having failed, struggles with astounding gallantry against the idiotic restrictions imposed by rulers of socialist disposition. The whole book may be summarised in the author's own words, when he writes of public life as a life which "all through the history of mankind has been regarded, and rightly regarded, with honour, and which was never concerned until recent years with the economic details to which, of course, it ought never to apply, and of which it ought to have little or no cognisance."

Sir Ernest Benn has many hard things to say of professors of economics. He believes that, in a misguided zeal for attempting to manage everyone else's affairs, they have forgotten all about their proper business of pursuing scientific truth. He believes further that, with few exceptions, they cannot keep their fingers off the socialistic mischief-making which, in his view, is the cause of pretty well all the world's troubles. Here, surely Sir Ernest causes himself more distress than he need. Has he quite overlooked the recent remarkable renaissance of the ideology of *laissez faire* in high academic circles?

BARBARA WOOTTON

Direct Taxation in Austria. By JOHN V. VAN SICKLE. (Harvard University Press. London: Humphrey Milford. 1931. Pp. ix + 227.)

THIS book provides a valuable history of the direct taxes in Austria, the term "direct" being used as Dr. Van Sickle points out, in a purely administrative sense and not with any reference to the problems of shifting and incidence; inheritance taxation is not included, but there is a full description of the post-war capital levy.

Dr. Van Sickle's principal thesis, which he tends perhaps to over-emphasize, is the existence of a considerable discrimination against corporate enterprise and big business during the period which he has investigated. Corporate enterprises had not secured a firmly established and fully recognised position in Austria before the war, originally because of the disastrous consequences of the panic of 1873, and subsequently on account of political conditions which favoured the small man and also of the "dubious dividend policies" of the companies themselves. Dr. Van Sickle illustrates his thesis by a detailed analysis of the produce taxes levied on the various branches of income and of the capital levy.

During the war surtaxes were levied on the existing taxes and a so-called War Profits Tax was introduced, which in fact "was levied on all increases of income whether directly connected with the war or not." But the financial position was being steadily undermined by a continuous inflation of the note issue.

The history of the post-war years down to the period of stabilisation brings out clearly the familiar difficulty of the failure of revenue to catch up with a depreciating monetary unit. The introduction of a Tax Unit as the basis of calculation failed apparently to produce any real improvement in the situation. Here we have the main reason for the failure of the capital levy, although there is probably a good deal of truth in the view that a levy was too big a thing to be carried through by an overburdened financial administration in a politically unstable state like the new Austria. Dr. Van Sickle concludes with some interesting criticisms of the Austrian bureaucracy, whose "respect for complexity for its own sake" was partly due, he suggests, to a too strictly legal training. This complexity and refinement in financial methods have, however, been eagerly adopted by the politicians, and "the *Beamte* are thus forced to satisfy a taste they have helped to create."

E. L. HARGREAVES

Oriel College, Oxford.

Russia and the Soviet Union in the Far East. By VICTOR A. YAKHONTOFF. (George Allen and Unwin, Ltd. 1932. 18*s*. net.)

THIS is an ambitious book which attempts a survey not only of Russian policy in the Far East but of the policies of Japan, China, Britain and the United States as well as of Chinese internal problems. The result is a superficial and sometimes entirely misleading presentation of a vast mass of facts insufficiently digested and apparently inspired by the desire to present the U.S.S.R. as the only friend of China. The author's historical equipment is obviously meagre. His presentation of recent events is not trustworthy. The diplomatic outrage of seizing the Russian documents in Peking is more than once insisted upon, but their contents are never revealed. Sun Yat Sen's doctrines are summed up as "modified Communism." The Nanking incident, it is insinuated, was due to the Northerners, though General Cheng Chien himself admitted responsibility, to the reviewer amongst others.

The writer has been given by the U.S.S.R. authorities access to some documents in the Archives of the Moscow Foreign Office, but he has made no such study as made Mr. Lewis Fischer's book so interesting. He includes in his Appendices, however, translations of some treaties and conventions, as to the authentic text of which there has been some dispute; *e.g.* the Russo-Chinese Treaty of 1896, and the Russo-Japanese Conventions of 1907, 1910 and 1916. There are also a Resolution of the "Comintern" (July 14, 1917) and extracts from the record of its Sixth Congress which are of interest. These are the most useful parts of the book. The rest is based almost entirely on secondary sources chosen without much discrimination. Quotations from some recent Russian works not commonly used by writers in English, titles of which are noted in the Bibliography, make parts of it of some value.

C. K. WEBSTER

The End of the Russian Empire. By M. T. FLORINSKY. Economic and Social History of the World War; Russian Series. (London: Humphrey Milford. Pp. 272. $3.)

WAS the Russian Revolution an incident in the World War or the World War an incident in the Russian Revolution? Dr. Florinsky has produced a well-written, candid and informative book. But it is also a disappointing book; and one is compelled to ask how far this disappointment arises from the author's

approach to his task. The advantage of looking at Russian events from the standpoint of their bearing on the World War is the simplification so achieved. But for this simplification it is possible to pay too high a price. If warlike ability, even success, is the major consideration, then the author's unsparing exposure is justified. But when it comes to the condemnation of a whole national existence, we could wish for a more discriminating insight.

Not that success is the author's sole criterion. Notwithstanding his severe "objectivity," he cannot conceal the bitterness and disillusionment of a Russian, who has lived through the collapse of Russian society and has himself lost faith in the principles on which that society was built. He is ashamed to use high-sounding phrases about the "recreation and cultural needs" which the workman could afford (would Tolstoy have been so ashamed ?); the autocracy scarcely needs his condemnation, and, in the light of the liberal leaders' performance, he can hardly understand their previous reputations. But, if he cannot forgive the past, neither can he reconcile himself to the present, and his only recourse is to abandon Russia. It is a hard phrase; but is it entirely unfair of a Russian who has so completely adopted the Anglo-American point of view ? If the War was not Russia's war (as is practically admitted), if Western conditions are not Russian conditions, what advantage is there for a Russian to adopt these half-relevant standards ? This, in our view, is Dr. Florinsky's great weakness—a weakness which has prevented him from giving his theme an adequate treatment.

After all, the author himself believes these events to be tragic, and he refuses a tragic treatment to a tragic theme. The possibilities of another treatment he virtually admits in his footnote on the Tsar; but on what ground does he deny to the tragedy of the Tsar, or, for that matter, the tragedy of the whole situation and of its actors, a "direct and immediate bearing" on the course of events ? What meaning does his narrative give to the land-hunger of the peasants, the mentality of the workmen, the illusions of the liberals, the extraordinary Rasputin affair ? He admits that these features of the situation had a long preparation, independent of the War of 1914–18. He thinks there was something wrong with the Church (though it is quite untrue to describe the Church as merely "another Government Department"). Perhaps he felt a certain inconvenience in dealing with such themes under the heading of "economic and social history." If so, then his hesitancy is vain. For, unless we are grievously

mistaken, the Russian Revolution arose, precisely on the ground of a need *religiously* to comprehend the modern economic and social problem, and demonstrates yet again that "concatenation of faith with the life of wealth and production," which Professor Kartashev has noted as a specifically Russian characteristic.

But, if our conclusion is to reverse Dr. Florinsky's standards, that does not exclude a high appreciation of the wide range of knowledge which he has placed at our disposal.

A. F. Dobbie-Bateman

NOTES AND MEMORANDA

The Royal Commission on Labour in India—A Correction

My attention has been drawn to an article appearing in your issue of September 1932 on "The Indian Industrial Worker" by Mr. G. T. Garratt, dealing mainly with the report of the Royal Commission on Labour, of which I had the honour to be Chairman. The opening paragraph says that it would seem that the Commission's work "has been almost forgotten both in India and in England," and the concluding paragraph contains the passage:

> "In the end the real incentive for improvement will have to come from the Government, and here again it is difficult to be optimistic. The impending changes are acting as a blight upon the existing authorities, and one wishes at times that the parable of the Unjust Steward could be read every Sunday at Delhi and Simla."

Within the eighteen months that have clapsed since the report was published, the Central Government have introduced six measures in the Central Legislature based on the Commission's report. Three of these have already been passed, one of them setting up a new system of control over recruitment for Assam tea-gardens and granting the right of repatriation to new recruits. Of the other three, one involves a wholesale revision of the Workmen's Compensation Act. In addition the Government of India published for criticism in June a new Factories Bill modelled on the Commission's recommendations and designed to replace all existing legislation; and the introduction of a Bill to regulate deductions from wages and to secure their prompt payment—both matters dealt with in the Commission's report—has been promised for the impending session of the Legislature. Various other proposals have been circulated with the Government of India's views for public criticism. I must leave your readers to judge how far Mr. Garratt's comments are accurate and fair.

Mr. Garratt's main thesis appears at the end of the following sentence:

> "A little practical experience in trying to institute the simplest of reforms would have persuaded the Labour Com-

mission that they were wrong in giving even a vague support to the idea that workers should remain closely connected with their villages."

I might perhaps remind your readers that the majority of the Commission consisted of men who had been connected with Indian industry for the greater part of their working lives; to mention only one name, I imagine that Mr. N. M. Joshi has spent many more years on industrial welfare work in India than Mr. Garratt has spent months. But I do not propose to enlarge on the adequacy of our experience, for I am not concerned so much to contest Mr. Garratt's own conclusions as to remove an evident misconception, which his article has already done something to spread in India, as to our own. Throughout his article he assumes that the choice is one between a casual labour force connected with the land (as in India at present) and a decasualised labour force divorced from the land (as in European cities). He further implies that the Labour Commission regarded the former as a permanent and, on the whole, preferable state of affairs.

Now a reading of our report will, I think, show that we did not view the choice as Mr. Garratt does, nor did we express any such preference as he implies. We were, in fact, as strong advocates of decasualisation as he is. We emphasised, in various passages, " the importance of substituting, as far as possible, the regular for the irregular worker," and a number of our more important recommendations were expressly directed to this end. In particular, if our idea of regularised holidays, with a promise of re-employment (free of illicit exactions) on return were adopted, it would, in my personal view, go far towards effecting a radical improvement in existing conditions. It is open to Mr. Garratt, or any other critic, to maintain that the evils of which he writes must remain so long as the workers are not divorced from the villages; but our conclusion on this subject was not framed in that belief.

J. H. WHITLEY

THE INDIAN BALANCE OF TRADE

(A FURTHER NOTE)

(1) MR. G. FINDLAY SHIRRAS, in his rejoinder to Mr. Birla, puts forward an estimate of India's foreign liabilities at £481 millions, with an upward limit of £500 millions, and dismisses Mr. Birla's figure of £1000 millions as " quite astronomical." The large discrepancy between these estimates seems to be due in the main

to an ambiguity in the phrase "foreign liability." What Mr. Birla means by "foreign liability" is evidently ownership of capital by *Europeans*, whether resident in India or abroad; what Mr. Shirras has in mind seems to be the ownership of capital by persons living outside of India. Mr. Shirras is thinking of the balance of payments as it is *now* with reference to the remittance of profits and interest; Mr. Birla is thinking of the standing threat to the exchanges which arises from the ownership of much of India's capital by temporary residents in the country. To omit from consideration the very large foreign holdings of Indian Rupee loans and of shares in rupee companies[1] is rather like neglecting, in a discussion of the English financial position, the short-term liabilities of the London money-market.

But Mr. Shirras under-estimates India's foreign liabilities even in his own narrower sense of the term.

(*a*) He includes the paid-up capital, but omits the debenture capital of companies registered out of India and working in British India. He also omits from the reckoning certain companies which by the very nature of their business can obviously be working only in India. Making these alterations, the revised figure for joint-stock companies registered out of India but working in British India comes to £161·7 millions, as against Mr. Shirras' £101·2 millions.

(*b*) The figure for municipal and Port Trust borrowings as compiled from the *Indian Investor's Year Book* for the year 1926–27 (to which Mr. Shirras' estimates refer) is actually £13 millions, as against Mr. Shirras' £10 millions.

(*c*) The share of the total working capital of banks, insurance companies, etc., doing business elsewhere than in India which can be properly attributed to India is estimated by Mr. Shirras at £30 millions. As he mentions £466·8 millions as the total of this capital, it is evident he has not taken into account the debenture capital of these concerns, which amounted to £72 millons. Under this head, therefore, an addition should be made to Mr. Shirras' figure by £4·6 millions.

(*d*) Mr. Shirras makes no allowance for that part of the capital of Indian Rupee companies which is held abroad. The *Financial Times* placed this figure at £75 millions,

[1] In 1917–18, the last year for which such statistics are available, the "European" holding of Indian Rupee loans was Rs. 100·42 crores, out of a total of Rs. 202·15 crores (£150 millions).

whilst the *Economist* put it at £10 millions. The *Economist's* figure is undoubtedly an under-estimate, as it refers specifically, with a few minor exceptions, to stocks officially dealt with in the London Stock Exchange, and is further limited to tracing British ownership of such capital. If one may take the mean of these two estimates for what they are worth, the figure would be £42·5 millions.

(*e*) No allowance is made for private capital in India in the form of partnerships, firms, etc., and of those there are a fair number, including some important export and import houses, managing agencies, etc. The share of this capital owned by non-residents may be placed at a minimum figure of £15 millions.

(*f*) Mr. Shirras' figures should be increased by the amount of Rupee loans held in London, which in 1926–27 totalled Rs. 861 lakhs, or £6·2 millions.

(*g*) Against the total of India's foreign liabilities arrived at as above, must be placed on the credit side the Indian ownership of sterling loans, which is estimated at a maximum of Rs. 50 crores, or £37·5 millions.

The final figure is therefore :—

	£ (millions)
Sterling liabilities of the Government of India . . .	339·4
Capital of joint-stock companies registered out of India but working in British India	161·7
Municipal and Port Trust borrowings	13·0
A share of the total working capital of banks, insurance companies, etc., doing business mainly elsewhere than in India	34·6
Share in capital of Indian rupee companies . . .	42·5
Non-residents' share in partnerships, firms, etc., working in India	15·0
Rupee loans held in London	6·2
Total of foreign liabilities	612·4
Deduct Indian share of sterling loans	37·5
Net total of foreign liabilities	574·9

This figure makes no allowance for foreign ownership of land and estates in India. A good part of this would have been counted in the capital of foreign plantations and mining companies, whilst such residential buildings and estates as are owned by foreigners belong to Europeans resident in India, and would not therefore come under the term " foreign liability " as used by Mr. Shirras. It is interesting to note that this estimate corresponds fairly closely to that made by the *Financial Times* in 1930. Altogether it would be reasonable to fix the upward limit at £600 millions, instead of at the £500 millions at which Mr. Shirras places it.

(2) In his anxiety to prove that India has not borrowed at "ruinous rates of interest," but has "a privileged position in the London money-market," Mr. Shirras makes a surprising slip. He claims the support of Sir Robert Kindersley for the contention that "the average rate of interest for Government and Municipal loans (for 1929 ?)—3·8 per cent.—was the lowest in the Dominions and Colonies, and no country in the world was able to borrow more cheaply." No indeed! To borrow at 3·8 per cent. in years like 1929 would have been a decided "privilege." But it was a privilege—need one add—which "no country in the world" has enjoyed these twenty years—not even India! For "Sir Robert Kindersley's figure" is taken from a table compiled by Sir George Paish in the years before the slump—to be quite exact in 1907; and Sir Robert has repudiated in advance the thesis of Mr. Shirras by estimating the average rate of interest on Indian loans for 1926 at something over $5\frac{1}{2}$ per cent.[1] For 1929 he gives no estimates whatsoever.

V. K. R. V. Rao

Gonville & Caius College,
Cambridge.

Official Papers

The General Tariff of the United Kingdom: Laws and Regulations. Compiled by A. S. Harvey, of H.M. Customs and Excise Department. (Pitman. Pp. 181. 5*s.*)

This is not an official publication, but it has the authority of expert and first-hand knowledge. In addition to the chapters which deal, by tabulation and exposition, with the parts out of which the whole British tariff is constituted, it has chapters explanatory of the operation of the Customs, which are fully documented. The issue of such a compendium is most opportune at the present time.

Review of New Legislation concerning Economic Agreements (Cartels, etc.) in Germany and Hungary. (League of Nations. Pp. 52. 1*s.* 6*d.*)

This review, by Dr. Tschiersky, continues previous studies of the legal and economic aspects of industrial agreements. The main interest is in the extension of supervision in Germany, by the Emergency Decree of 1930, the Decrees concerning compulsory prices imposed by organisations (especially resale prices), and

[1] The Economic Journal, 1930, p. 18.

the general Decree of 1931, in its clauses relating to the reduction of prices and rates of interest. The original Decree against the Misuse of Economic Power (the Cartel Decree of 1923) remains in force, but these later additions bear more particularly on price policies, and they give to the Government of the Reich a more direct authority, since recourse to the Cartel Tribunal is not necessary. The new measures are not limited in their application to Cartels, though the policy of Cartels, which aim at preventing the fall of prices in a depression, is an important case. Under the Emergency Decree the Government is also now empowered to reduce or abolish import duties on goods where prices are regarded as uneconomic in their effects. This Decree would seem to be wide enough to cover the question of resale prices generally, but it is reinforced by further Decrees which required the definite reduction of the prices fixed under resale agreements. It appears that resale price agreements may be declared void, but are not necessarily so. The legal position is carefully argued by the author, and has a great many points of incidence on different forms of "rationalised" production, both vertical and horizontal. D. H. MACGREGOR

Review of World Production, 1925–31. (League of Nations. Pp. 166. 5*s*.)

Review of World Trade, 1931–32. (League of Nations. Pp. 76. 2*s*.)

THE review of the statistical evidence here presented is summarised in the following conclusions :—

There was a rapid increase in production and the quantity of trade from 1925 to 1929. Investment goods expanded much more rapidly than consumption goods; food-stuffs increased comparatively slowly. In this period the general level of wholesale prices, though comparatively stable, "concealed a condition of economic disequilibrium which gradually developed," and became apparent at the end of 1929. The severity of the depression is largely due to the fact that the slump in industry was superimposed on a severe agricultural crisis, characterised by the maintenance of supply at a high level in spite of a considerable reduction of demand, as shown by the accumulation of stocks. Between 1929 and 1931 the world production of agricultural products declined by only about 3 per cent.; that of raw materials for producers' goods by about 20 per cent. The changes in productive activity have been very different as between continents and countries, and only a few industries can be mentioned

which have suffered little or expanded. The price decline on world markets since 1929 has been greatest in the case of crude food-stuffs and raw materials of agricultural origin; and it has been great for goods which have been subject to unsuccessful attempts at monopolistic control. Special protective measures have caused domestic prices to fall more than world prices, notably in the case of wheat. Cartellised prices have fallen much less than free prices. The unequal fall in the prices of primary and secondary products has shifted the terms of trade against countries producing the former. "The importing capacity of the agricultural countries has been so seriously diminished that the export industries of the industrial countries have suffered severely." Restrictions and controls "have altered the competitive power of countries whose economic structure is otherwise comparable, favouring those which have pursued a relatively liberal trade policy, and have adjusted domestic costs and prices to the conditions prevailing in world markets."

D. H. MACGREGOR

CURRENT TOPICS

MRS. SIDNEY WEBB and Mr. D. H. Robertson have been elected Fellows of the British Academy during the last year in the Section of Economic Science. The election of Mrs. Webb is of special interest, since she is the first woman to be elected a Fellow of the British Academy and, as we believe there has been no election of a woman to a Fellowship of the Royal Society, she is the first to be elected to either of these bodies.

The Fellows of the British Academy in the Section of Economic Science are now as follows:—

Professor C. F. Bastable
Dr. James Bonar
Professor A. L. Bowley
Professor J. H. Clapham
Professor H. S. Foxwell
Mr. J. M. Keynes
Professor A. C. Pigou
Mr. D. H. Robertson
Professor W. R. Scott
Sir Josiah C. Stamp
Mrs. Beatrice Webb

The Economic Society of South Africa has decided to publish as from March 1933 a quarterly journal, to be called *The South African Journal of Economics*, under the general editorship of Professor S. H. Frankel and Professor R. Leslie, and under the management of Professor C. S. Richards. The Journal will

contain articles on theoretical questions and book reviews, as well as articles on African financial, economic and commercial affairs. It will also include a statistical appendix, giving South African official statistics and economic indices. The Journal can be obtained through personal or library membership of the Economic Society of South Africa for a guinea a year, or can be purchased for 24*s*. Applications for membership should be made to the Honorary Secretary and Treasurer, Mr. C. W. Pearsall, Census Office, Pretoria.

Having held the Chair of Political Economy in the University of Dublin for fifty years, and the Regius Professorship of Laws for twenty-four years, Prof. C. F. Bastable resigned in June 1932. Desiring to commemorate in a fitting manner his long and distinguished career, a committee of his colleagues and former students at Trinity College invite subscriptions for the purpose of endowing a "Bastable" prize or medal in the University of Dublin in connection with the study of Economics. Subscriptions (limited to two guineas) may be sent to Mr. G. A. Duncan, 7 Braemor Park, Dodder Road, Rathgar, Dublin.

RECENT PERIODICALS AND NEW BOOKS

Economica.

NOVEMBER, 1932. *Graham Wallas; Addresses given at the London School of Economics and Political Science.* J. C. STAMP, LORD PASSFIELD, H. J. LASKI, W. H. BEVERIDGE. *Consumption and the Trade Cycle.* L. ROBBINS. *The Definition of the Concept of a "Velocity of Circulation" of Goods. Part I.* A. W. MARGET. *Coke and the American Revolution.* C. F. MULLETT.

The Economic Record.

OCTOBER, 1932 (Supplement). Papers on World Economic Influences. *The Stabilisation of Sterling.* D. B. COPLAND. *The Course of World Prices.* L. F. GIBLIN. *Reparations and War Debts.* G. L. WOOD. *The Australian Balance of Payments.* R. WILSON. *Some Aspects of the Sterling-group Proposals* C. V. JANES. *The Gold Situation.* B. ROUCH. *Political Obstacles to World Recovery.* W. M. BALL. *Fundamental Presuppositions for Successful Economic Planning.* H. G. B. FISHER. *The rationalisation Movement and Australian Industry.* F. R. E. MAULDON. *The Crisis in New Zealand.* E. P. NEALE. *Some Problems of Dairy Marketing.* F. B. STEPHENS. *International Researches into Costs of Maintenance of Different Families.* D. T. SAWKINS.

DECEMBER, 1932. *Bolshevism, Fascism, and Democracy.* E. C. DYASON. *The First Financial Agreement (Australian).* N. COWPER. *Australian Monetary Policy reconsidered.* K. S. ISLES. *Australian Labour and the Crisis.* L. ROSS. *Land Settlement Finance in New Zealand.* D. O. WILLIAMS. *The Financing of Afforestation, Flax, Tobacco, and Tung Oil Companies.* H. BELSHAW and F. B. STEPHENS. *Sliding Scales in Depression: New Zealand Wheat.* A. G. B. FISHER.

Indian Journal of Economics.

OCTOBER 1932. *A Special Type of Utility Function.* C. D. THOMPSON. *The Distributional Analysis of Protective Duties in India.* H. L. DEY. *Cost Analysis and the Measure of Protection.* N. N. DAS.

The Manchester School.

Vol. III. No. 2. *The Balance Sheets of three Limited Companies in the Cotton Industry.* G. W. DANIELS. *The Economic Limits to Expenditure on Social Services.* H. CLAY. *Is our Economic System Obsolete?* LORD MELCHETT. *The Relation of Banking Technique to Economic Equilibrium.* J. STAFFORD. *The Supply of Electricity in Industrial Lancashire.* A. WINTERBOTTOM.

Quarterly Journal of Economics.

NOVEMBER 1932. *The Statistical Measurement of the Velocity of Circulation of Goods.* A. W. MARGET. *The Static and the Dynamic in Statistical Demand Curves.* W. F. FERGER. *The British Wheat Act, 1932.* A. PLUMMER. *Ernst Engel's Law of Expenditures for Food.* C. C. ZIMMERMANN. *Economic Planning.* P. T. HOMAN.

Review of Economic Statistics.

NOVEMBER, 1932. *The U.S. as a Creditor Nation.* C. J. BULLOCK. *Selected Individual Commodities and Recent Cyclical Fluctuations in Business.* H. B. ARTHUR and S. J. DENNIS. *Loans on Securities, 1921–32.* S. LIVERMORE. *The Output of New Corporation Issues.* P. T. ELLSWORTH. *General Economic Conditions* (Ed.).

American Economic Review.

DECEMBER, 1932. *Exchange Control.* C. R. WHITTESLEY. *Soviet Trade Unions.* A. HEWES. *Revenue Act of 1932.* R. G. BLAKEY and G. C. BLAKEY. *American Labour Movement.* L. W. COOPER. *Net Value of Manufactures.* T. E. THOMPSON. *Technological Change in Commercial Printing.* E. F. BAKER.

Annals of the American Academy of Political and Social Science.

NOVEMBER, 1932. *Palestine: a Decade of Development.* By various authors.

JANUARY, 1933. A study of *Essentials for Prosperity*, including the questions of *Unemployment, The Church, Competition and Co-operation, Industry, Economy of Expenditure, Gold.* Distinguished writers contribute to each Section.

Journal of Political Economy.

OCTOBER, 1932. *Edgeworth's Taxation Paradox and the Nature of Demand and Supply Functions.* H. HOTELLING. *The Theory of Population.* A. PLUMMER. *Holland, Switzerland, Belgium, and the English Gold Crisis of 1931.* W. HURST. *Technological Development of the American Pottery Industry.* H. J. STRATTON. *The Economic Significance of Brokers' Loans.* W. J. EITEMANN. *Capital Production and Consumer-taking.* J. M. CLARK and R. FRISCH.

DECEMBER, 1932. *Types of Institutionalism.* A. L. HARRIS. *British Mercantilist Doctrines.* E. A. J. JOHNSON. *How large is our National Income?* M. A. COPELAND. *An Unpublished Paper on the I.W.W.* T. VEBLEN. *A Theory of Prices.* N. PETRILSKO. *Modern Economic Society.* S. H. SLICHTER and F. H. KNIGHT.

Wheat Studies (Stanford, California).

OCTOBER, 1932. *Price Spreads and Restraint of United States Wheat Exports.* An inquiry into the forces that are responsible for keeping United States wheat prices above an export basis in a period when their exportable surplus is very large, and particularly in 1931–32, when the Stabilisation Corporation was not taking wheat off the market but disposing of much of its large stocks.

NOVEMBER. *The Voluntary Domestic Allotment Plan for Wheat.* This is a very elaborate proposal, commonly known as the Wilson scheme, which is of considerable importance, because there appears a substantial probability that something of the kind will be adopted and carried into law by the incoming administration. This memorandum gives details of the plan in relation to wheat, but there is talk of extending the same arrangements to other commodities. The actual draft of the scheme is complicated, but the substance of it reduces to the following. For each farmer there will be determined a standard wheat acreage, based on what he has actually cultivated in the last three years. If he is prepared to enter into a contract to reduce his acreage by a specified amount, he will then receive a bonus proportionate to the amount by which he has been required to reduce. He will receive this bonus whether or not he grows wheat on his remaining acreage. The amount of the bonus will be recovered by a turn-over tax on processors (*i.e.* the millers, in the case of wheat), very much as in the case of the British Quota Scheme. Thus the income of the farmer is increased at the expense of that of the consumer in two ways;—partly by a turn-over tax on processors, and partly by the rise in the open market price consequent on the curtailment of acreage.

DECEMBER. *The World Wheat Situation, 1931–32: a Review of the Crop Year.* Wheat stocks were reduced by 90 million bushels in the course of the year, but were still 50 per cent. above normal at the close. The excess was almost entirely in North America.

JANUARY, 1933. *Survey of the Wheat Situation, August to November 1932.* International trade in wheat in August–November 1932 was the smallest in a decade. New low record prices were registered in all futures markets in November–December, though prices at Chicago remained above export parity.

International Labour Review.

NOVEMBER, 1932. *Unemployment in Sweden after the War.* A. JOHANSSON. *World Economic Reconstruction.* G. CASSEL. *Problems of Conciliation and Arbitration.* E. KUTTIG. *Scandinavian Employers and Collective Labour Agreements.* E. ERICHSEN.

DECEMBER, 1932. *International Reduction of Hours of Work.* F. SITZLER. *Unemployment Insurance and Public Assistance.* J. L. COHEN. *The "Unbroken" Working Day.* M. MILHAUD. *Migration and Depression.* E. P. NEALE. *Scandinavian Employers and Collective Labour Agreements (contd.).* E. ERICHSEN. *The Economic Depression and Public Health.*

JANUARY, 1933. *The Social Consequences of a Return to Gold: An Analysis of Certain Current Proposals for an International Monetary Standard.* P. W. MARTIN and E. J. RICHES. *The Investment of Social Insurance Funds.* V. KLUMPAR. *The Conditions of Agricultural Workers in Poland in 1930–31.* J. GNOINSKI. *An International Conference on Migration Statistics.*

Index (Stockholm).

NOVEMBER, 1932. *Some aspects of Sweden's foreign trade.*

DECEMBER, 1932. *The World's Staples. XVI. Lead.* H. T. WARSHOW and F. E. WORMSER.

JANUARY, 1933. *The Great Trade War.*

Revue d'Économie Politique.

SEPTEMBER, 1932. *Économique et statistique.* F. DIVISIA. *L'État au secours des enterprises privées défaillantes.* E. JAMES. *L'Afrique, champ d'expérimentation des formules d'économie mixte.* R. HOFFHERR. *Recherches sur la distribution des denrées d'épicerie par le commerce privé et par les coopératives.* G. GAUSSEL.

NOVEMBER, 1932. This number is devoted to the memory of CHARLES GIDE. *L'homme; sa vie, sa personnalité.* A. DAUDÉ-BANCEL. *L'écrivain et l'orateur.* E. DOLLÉANS. *L'économiste.* C. RIST. *L'historien des doctrines.* C. BOUGLÉ. *L'économiste social.* W. OUALID and R. PICARD. *Le théoricien de la coopération.* B. LAVERGNE. *Le militant coopérateur.* E. POISSON. *Le pacifiste.* J. L. PUECH. *Le moraliste.* A. LANDRY. *Bibliographie des œuvres.*

Journal des Économistes.

NOVEMBER, 1932. *Le chaos financier et commercial.* E. PAYEN. *La crise économique en France.* M. CARSOW.

Schmollers Jahrbuch.

OCTOBER, 1932. *Über die Voraussehbarkeit geschichtlicher Ereignisse.* J. THYSSEN. *Über den Begriff der "Mittleren" Seltenheit in den "Elements d'Économie Politique Pure" bei Leon Walras.* O. WEINBERGER. *Schichtung und Auslese der Arbeitskräfte.* E. WILLEKE. *Kommunalfinanzen und Finanzausgleichsreform.* K. JESERICH. *Die Wirtschaftsgesinnung des Mittelalterlichen Zünftlers.* E. KELTER.

JANUARY, 1933. *Festgabe für Werner Sombart zur 70 Wiederkehr seines Geburtstages.*

I. *Theorie und Geschichte.* E. ROTHACHER. *Über die Zusammengehörigkeit wirtschaftstheoretischer und wirtschaftsgeschichtlicher Untersuchungen.* K. DIEHL. *Theoretische Begriffsbildung und Wirtschaftsgeschichte.* O. VON ZWIEDINECK-SÜDENHORST. *Die allgemeine Volkswirtschaftslehre als geschichtliche Theorie.* A. SPIETHOFF. *Die Wandelnde Rolle von Unternehmerbild und -funktion in verschiedenen Epochen der Wirtschaftsgeschichte und die Theorie von Unternehmer und Unternehmung.* F. BRUCK. *Die Bedeutung der Agrargeschichte für die deutsche Volkswirtschaftslehre.* C. J. FUCHS. *Aussenhandelstheorie und Handelsgeschichte.* C. BRINKMANN. *Stile und Epochen der Finanzwirtschaft.* H. BECHTEL. *Welthistorische Gesichtspunkte zu den vormittelalterlichen Wirtschaftsepochen.* F. HEICHELHEIM. *Über die geschichtliche Bedingtheit der physiokratisch-klassischen Nationalökonomie.* H. J. SERAPHIM. *Die vier Begriffe der Weltwirtschaft und ihre Problematik.* K. PRIBRAM.

II. Die Gestaltung der Wirtschaftsverfassung. *Theorie der Wirtschaftsverfassung.* H. SCHACK. *Politische und Wirtschafts-*

verfassung. H. von Beckerath. *Volkseinkommen und Volksvermögen in der kapitalistischen Wirtschaftsverfassung.* S. Helander. *Die Diskontpolitik in der kapitalistischen Wirtschaftsverfassung.* A. von Mühlenfels. *Die Wirtschaftsverfassung zwischen Individualismus und Kollektivismus.* W. Weddigen. *Planwirtschaft. Rathenaus Forderungen, Mussolinis Formungen.* C. Eckert. *Wirtschaftsverfassung der Faschismus.* E. von Beckerath. *Die geistesgeschichtliche Bedeutung des italianischen Faschismus.* K. Singer. *Die Wirtschaftssystem Sowjetrusslands.* P. Berkenkopf.

Jahrbücher für Nationalokonomie und Statistik.

November, 1932. *Beiträge zur Lehre von den statistischen Genichten.* K. Freudenberg.

December, 1932. *Uber die Nachfrage nach Produktionsmitteln und ihre Elastizität.* E. Schneider. *Die internationalen Trust und Kartelle.* R. Michels.

Zeitschrift für Nationalökonomie.

October, 1932. *Das Prinzip der knappheit, technische Kombination und ökonomische Qualität.* F. Zeuthen. *Irrtümer in der Zeit als Ursachen wirtschaftlicher Schwankungen.* M. Fanno. *Die allgemeine Inderdependenz der Wirtschaftsgrossen und die Isolierungsmethode.* O. Lange. *Die gegenwärtige Stand der reinen Theorie der Finanzwissenschaft in Italien.* M. Fasiani.

January, 1933. *Ein neuer Versuch der Vermessung des Grenznutzens.* A. Billimovic. *Zur Dogmengeschichte des Begriffes einer "Umlaufsgeschwindigkeit der Güter" und seines Verhältnisses zur Umlaufsgeschwindigkeit des Geldes.* A. W. Marget. *Zum Problem der teleologischen Theorie der Wirtschaft.* K. Englis.

Archiv für Sozialwissenschaft und Sozialpolitik.

November, 1932. *Banken und Bankpolitik in der V. S. in der Krise von 1929–1932.* R. W. Goldschmidt. *Hegels Freiheitsidee in der Marx'schen Dialektik.* W. Falk. *Jean Jaurès und die materialistische Geschichtstheorie.* H. Hintze.

December, 1932. *Das Problem der russischen Wirtschafts- und Sozialverfassung.* E. Lederer. *Gesellschaftliche Gruppen nach Art und Grund der Verbundenheit.* A. Walther. *Lohn und Konjunktur vor dem Kriege.* M. Mitnitzky.

January, 1933. *Volksvermögen und Kassenbedarf.* J. Marschak. *Kapital und Kredit in Konjunkturzyklus.* L. Lande. *Zur ökonomischen Struktur und Funktion der Kartellquote.* F. Milener.

Zeitschrift für die gesamte Staatswissenschaft.

December, 1932. *Über Verfahrensweisen zur Bestimmung des geldlichen Grenznutzens.* O. Weinberger. *Der Handel in der Alsatzorganisation.* F. Redlich. *Steuerpsychologie.* P. Szende.

January, 1933. *Die Lehren der deutschen Preissenkungsaktion.* F. Zahn. *Geschichtliche und soziologische Begründung der berufsständischen Sozialordnung.* G. Albrecht. *Die Möglichkeiten einer Erweiterung des Arbeitsbedarfes.* O. Conrad.

Weltwirtschaftliches Archiv.

JANUARY, 1933. *Die säkulare Bedeutung der Weltkrisis.* W. ROPKE. The crisis opens a new chapter, the mark of which will be autonomous economic regions. What is and what is likely to come about should not be confused with what is desirable. The consequences of the present contraction of world economy is a misfortune, which can be overcome by good-will, and there need be an end neither of world economy nor of Capitalism.

Die Reichswirtschaftskonferenz von Ottawa. J. COATMAN. The chief changes made by the Conference in Empire tariff structures and its significance for the world are shown. There has been a net increase in the height of Empire tariffs against foreign countries, but a net decrease inside the Empire. The sacrifices made by the United Kingdom are great and will probably have to be further recompensed by certain Dominions. A survey of all the proceedings of the Conference shows reason to believe that the first steps have been taken towards an Empire-wide policy of economic co-operation. *Die Zersplitterung und Wiederergänzung der Weltwirtschaft.* M. MANOILESCO. The author defines the unitary and centralising character of pre-war world economy and aims to show that industrial decentralisation of the world is to-day both legitimate and unavoidable. The consequence will be a monetary destruction of world economy and a self-supporting isolation of each country, contrary to the principle of international distribution of production. The various states will become great commercial units, closely directing international trade. Following this destructive process, world economy will be rebuilt by the co-operation of the almost self-supporting units, represented by each state. *Die Zukunft der Eingleiderung Ungarns in die Weltwirtschaft.* W. HELLER. A discussion of the prospects of Hungary in relation to autonomy, a Danubian Federation, and the German and Italian markets. Her foreign trade must depend on a change in the trade policies of Europe. *Die wirtschaftlichen Beziehungen Jugoslawiens und die Problematik seiner Eingliederung in die Weltwirtschaft.* O. VON FRANGES. A discussion of the foreign trade of Jugo-Slavia, and of its distribution, shows its dependence on its immediate neighbours for its exchanges; it seeks a good balance by preferential, bilateral, and reciprocal agreements. *Die Bedeutung wirtschaftlicher Autarkie für die industrielle Struktur der Vereinigten Staaten.* C. S. TIPPETTS. If the United States should adopt a policy of economic isolation, it would bring disaster to many important industries. Many others would suffer because a large proportion of their production has been exported. Many industries depend upon imported materials. It would mean, furthermore, the loss of billions of dollars of foreign investments. Isolation would probably make it easier to prevent business depressions, but the cost of greater stability would be greater than the gains obtained.

The World Monetary Problem. J. DONALDSON. World economic disorder rests fundamentally not on production-consumption, but exchange. Practical monetary difficulties, including policies, and critical reasoning, including balances of international payments, raise serious deductive and inductive questions in the classical theory of international prices and gold. Gold does not behave as

predicted. Other alternatives have known faults. The tabular standard has a scientific appeal, but lacks feasible technique and conditions. Prevention of national, international, commercial and financial crises demands improvement and synchronisation of monetary systems. The best realistic hope lies in the functional growth of the B.I.S., or similar practical machinery, perhaps promoted by the coming World Monetary Conference. *Die europäische Verflechtung des amerikanischen Aussenhandels.* H. LEVY. An investigation of the development of American foreign trade with other continents. After the War, the importance of Europe was under-estimated. An attempt was made to exploit by credits and propaganda other overseas areas. With the crisis, the trade with Europe comes again into the foreground. *Zolltarif und Arbeitsmarkt in Australien.* D. B. COPLAND. The author was a member of the Tariff Committee of 1929, and he discusses this question in relation to primary and secondary and manufacturing industries.

De Economist.

SEPTEMBER, 1932. *Winstdeeling en Bedrijfsmedebezit. I.* H. W. C. BORDEWIJK. On profit-sharing and co-partnership. At the outset the writer discusses Lassalle's productive associations. In Lassalle's system the State was to provide the whole of the necessary capital. Lassalle won over Bismarck to his ideas, and his scheme was incorporated in the Gotha programme of 1875. A cardinal fault in such schemes is the lack of discipline. Turning to profit-sharing, in an undertaking which adopts such a scheme the place of the worker is changed. On an analysis of the constituent elements of profits, it is argued that there is no title of right to a claim on the part of labour to share in profits. Such schemes are therefore based on opportunism, and advocated in the interests of industrial peace. Moreover, the system cannot be universally applied; there is no place for it in the marginal firms. A further objection is that it ought not to be permissible to share in the profits without also sharing in the losses; it is suggested that this difficulty might in part be met by reserving part of the profits destined for the workers to be set against subsequent losses. Taussig's reservations are quoted with approval, and it is argued that the sphere in which such a system can operate is very limited. *De Wet der verminderde meeropbrengsten ten opzichte van het Kapitaal. II.* R. VAN GENECHTEN. The second of two articles on the Law of Diminishing Returns, considering in detail the application of the Law to Capital, and indicating the points of similarity and of difference from the case of land as discussed in the previous issue. *Landsmeer.* J. DE VRIES. An extensive economic analysis of the life of Landsmeer (pop. 3,472), a village some miles north of Amsterdam.

OCTOBER, 1932. *Winstdeeling en Bedrijfsmedebezit. II.* H. W. C. BORDEWIJK. The present continuation is concerned with co-partnership, to which the socialist movement is more opposed than to simple profit-sharing. The objections to profit-sharing might not seem to apply here; nevertheless experience brings disillusionment. The difficulties and limitations are discussed, and it is suggested that there is in such schemes "something

artificial and hybrid." *De mogelijkheid van een meervoudig economisch evenwicht. I.* J. G. Koopmans. A lengthy analysis discussing and elaborating a passage in a recent article by Dr. Tinbergen to the effect that closer investigation of the equations of equilibrium (of *e.g.* Cassel and Walras) which determine the extent of production, the level of prices, etc. in a static society, shows that there is not one position of equilibrium, but that there may be various positions of equilibrium. "It is quite possible and indeed highly probable . . . that at least two positions of equilibrium exist, both stable, the one, for example, with considerable employment, the other without."

NEW BOOKS

British.

Alston (L.). The Functions of Money. Macmillan. 8½″. Pp. 139. 5*s.*

Arkright (F.). The A B C of Technocracy. Hamish Hamilton. 7¼″. Pp. 96. 2*s.* 6*d.* (cloth), 1*s.* 6*d.* (paper).

Barou (N.). Co-operative Banking. P. S. King. 8½″. Pp. 350. 15*s.*

Blackett (Sir B.). Planned Money. Constable. 7½″. Pp. 194. 5*s.*

Boyazoglu (A. J.). Agricultural Credit. P. S. King. 8½″. Pp. 267. 15*s.*

Braithwaite (D.) and Dobbs (S. P.). The Distribution of Consumable Goods: an economic study. Routledge. 8½″. Pp. x + 304. 10*s.* 6*d.*

Brayne (F. L.). Socrates persists in India. Oxford University Press. 7¼″. Pp. 140. 2*s.*

Chorley (R. S. T.) and Tucker (H. A.). Leading Cases on Mercantile Law (being a companion volume to Stevens' *Mercantile Law*). Butterworth. 8½″. Pp. 277. 9*s.*

Connor (L. R.). Statistics in Theory and Practice. Pitman. 8¾″. Pp. 371. 12*s.* 6*d.*

Coyajee (Sir J. C.). India and the League of Nations. Waltair: Andhra University. 9¾″. Pp. 239. 5*s.*

Dawbarn (C. Y. C.). Progress and Prosperity. Longmans, Green. 8¾″. Pp. 302. 7*s.* 6*d.*

Eggleston (F. W.). State Socialism in Victoria. P. S. King. 8½″. Pp. 346. 15*s.*

Evitt (H. E.). An Introduction to the Practice of Foreign Exchange. Pitman. 8½″. Pp. 102. 3*s.* 6*d.*

Fay (C. R.). The Corn Laws and Social England. Cambridge University Press. 8¾″. Pp. 223. 10*s.* 6*d.*

George (H.). The Science of Political Economy. New edition. Henry George Foundation. 7¼″. Pp. 433. 2*s.* 6*d.*

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THE ECONOMIC JOURNAL

JUNE, 1933

BRITISH OVERSEAS INVESTMENTS IN 1931

THE aim of the following paper, the fifth of a series of annual surveys of British Overseas Investments, begun in 1928, is to set forth the results of a study of the position in 1931,[1] and to discuss such changes as have emerged in comparison with the preceding year.

As on an earlier occasion, provisional figures are submitted for 1932—in anticipation of the detailed scrutiny of the full data now becoming available—in order to bring the general conclusions arrived at into closer relation with the realities and implications of our present economic position.

In the belief that this may prove a desirable addition, an attempt has been included for the first time in the following pages to analyse and present in tabular form the geographical distribution of the main body of foreign investments which forms the subject of this study.

The procedure followed in conducting this investigation has remained substantially the same as in previous years,[2] while at the same time it has been possible to eliminate some sources of possible error and to supplement the available data in certain respects. The results obtained and the accuracy that may be claimed for them are only rendered possible, however, by the authentic information placed at my disposal by the Banks and Issuing Houses of London and by a great number of commercial and industrial Companies, both in the United Kingdom and abroad, and I am happy to have this opportunity of making due acknowledgment of their courtesy and valuable assistance.

As in previous inquiries, the securities examined include:

1. The bonds and stocks of Colonial and Foreign Governments and Municipalities, interest payments on which are made in London.

[1] The reader, if interested to compare the results for 1931 as now ascertained with the provisional estimate essayed last year, may be referred to the ECONOMIC JOURNAL, June 1932, p. 192.

[2] See ECONOMIC JOURNAL, June 1932 and September 1931.

2. Securities of all British companies, classified in the Stock Exchange Intelligence, operating abroad and registered in the United Kingdom.
3. Securities of Foreign and Colonial companies registered and operating abroad in which dealings are permitted on the Stock Exchanges of the United Kingdom.

This detailed analysis, although covering the main field of British investments overseas, is incomplete in so far as it omits from consideration a body of foreign securities held here but not dealt in in the British markets, other individual investments in private companies and firms and other property, and the oversea activities of a number of British companies whose main assets are situated in the United Kingdom. As on previous occasions, however, an attempt is made to include an estimate covering these forms of investment in the final totals.

Group I.

Colonial and Foreign Government and Municipal Stocks and Bonds [1]

The following table, which shows the proportion of interest paid in London, tax deducted, in respect of the bonds of foreign and Dominion Governments and Municipalities, reveals that the amount held abroad is surprisingly high.

Table I

Type of Security.	1930.	1931.
Dominion and Provincial Government	90·4%	88·8%
Dominion and Colonial Municipalities	91·9	89·8
Foreign Governments . .	55·0	54·2
Foreign Municipalities . .	74·6	74·7

In considering the above percentages it should be borne in mind that they relate not only to sterling issues made in London, but also to the not inconsiderable amount of sterling *tranches* placed abroad. This latter consideration does not, however, destroy the conclusion that during 1931, owing to the rapid and widespread fall in prices in the Foreign Bond market, Foreign and Colonial nationals repurchased some of the issues floated by their Governments on the London market.

[1] The method applied to this group of securities has been discussed in previous articles in the Economic Journal and in detail in the June issue of 1930. The proportion of the interest paid in London, tax deducted, indicates the British holding in this class of investment.

TABLE II

(£000's.)

Type of Security.	Capital.		Income.		Repayment.	
	1930.	1931.	1930.	1931.	1930.	1931.
Colonial Governments . .	985,532	1,014,826	42,490	44,145	8,288	2,568
Colonial Municipalities . .	94,965	88,620	4,388	4,260	1,531	2,939
Foreign Governments . .	320,112	301,875	15,793	15,715	9,032	10,139
Foreign Municipalities . .	36,730	35,562	1,995	1,800	830	621
Total . .	1,437,339	1,440,883	64,666	65,920	19,681	16,267

British money invested in new issues of Colonial and Foreign bonds in 1931, *less* repayment to British nationals through the operation of sinking fund and maturities, amounted to nearly £10 million. Nevertheless, it will be seen that the total amount of British capital outstanding did not increase to the same extent, thus affording some confirmation of the conclusion arrived at above regarding repurchases by Foreign nationals. Among Foreign bonds only, the heavy annual repayment through the operation of sinking funds combined with the gradual repurchase by foreigners has been responsible for a further reduction of £19 million during 1931 in British capital invested in these bonds. The following figures illustrate the changes that have taken place in the British holdings of Empire and Foreign loans.

TABLE III

British Capital invested in Empire and Foreign Loans.

(£000,000's.)

	Empire.	Foreign.	Total.
1928	1,035·9	364·5	1,400·4
1929	1,061·4	351·0	1,412·4
1930	1,080·5	356·8	1,437·3
1931	1,103·5	337·4	1,440·9

Therefore between December 1928 and December 1931, British holdings of Dominion loans increased by £68 million, whilst holdings of Foreign loans declined by £27 million, and amounted to only 23 per cent. of the aggregate at December 1931.

In spite of defaults on some Foreign bonds during 1931, income from Colonial and Foreign bonds (as shown in Table II) increased during that year by £1¼ million. This is explained by

the fact that during 1930 a number of important issues were floated in London on which a full year's interest was not due until the succeeding year. Further, although moratoria were declared in 1931 by several South American countries, effective default on a full year's coupons did not take place until 1932. Of a total service of £14,457,000 in default in 1932 in respect of the above loans, the loss sustained by British investors amounted to £8,140,000, of which £3,095,000 was in respect of sinking fund payments.

Service in Default in 1932.

Europe	£2,109,000
Latin America	12,212,000
China	136,000

It will be noted that, in spite of financial and economic difficulties on the Continent, the extent of European default is surprisingly small, having regard to the fact that British investments in the bonds of European Governments and Municipalities constitute well over one-third of the total British capital invested in this class of security.

Repayments in 1931 amounted only to £16·3 million as compared with £19·7 million in 1930 and £30·4 million in 1929. These wide fluctuations from year to year in this item are inevitable, however, as repayments naturally vary in accordance with the loans which happen to mature and are actually repaid in the course of any one year. These maturities were over £16 million in 1929, but were negligible in 1931. Repayments in 1932, which included two large Indian loans, may be provisionally estimated at £34 million, after deducting some £3 million in respect of suspended sinking funds.

British Commercial Capital Abroad

It is convenient for purposes of analysis to divide this body of investment into two parts, one part comprising the securities of British companies operating abroad, *i.e.* companies registered in the United Kingdom; the second part consisting of British investment in foreign and colonial companies.[1]

[1] Roughly, 3,000 companies have come under the purview of this investigation, and British holdings have been assessed by means of samples averaging 50 per cent. of the total capital involved. These samples are not identical in all respects with those used in previous inquiries, and consequently completely accurate comparisons with previous years cannot be made, particularly when changes are inconsiderable. For a full discussion of the method used and of its limitations in respect of bearer securities, nominee holdings, etc., the reader may be referred to the article on British Overseas Investments in the Economic Journal of September 1931.

GROUP II.

British Companies Operating Abroad.

For the purpose of this investigation a company is taken to be operating abroad if its plant and equipment are in the main situated abroad. A number of companies, however, particularly among those classed under "Commercial and Industrial," carry on extensive business both at home and abroad. The larger companies of this nature have been covered by these inquiries, but no attempt has been made to estimate in detail the oversea assets of minor British companies.[1]

It has to be borne in mind, in a study of the tables given below, that dividends distributed on account of share capital, and interest paid on debentures, may not even approximately represent the effective remittances or the total earnings abroad of British companies operating overseas. For these receipts include remittances in respect of head office expenses and directors' salaries, and net earnings must take account of sums placed to reserve out of profits or drawn from reserves to meet deficiencies. Since 1929, in which year net profits were frequently in excess of distributed dividends, the margin has shrunk considerably, and owing to losses suffered by important groups of companies, particularly Rubber companies, it may be doubted whether net earnings exceeded dividends declared for 1931. Similarly for 1932, it is probable that on balance dividend payments were somewhat in excess of net earnings.

The total nominal British capital invested in these securities tends to remain very stable in the absence of new issues or the flotation of new companies. Purchases and sales, although extensive, mainly result in transfers of securities between holders in the United Kingdom, the high rate of British income tax acting as a strong deterrent to foreigners to the purchase of shares and bonds of British properties situated in their countries.[2]

[1] In the case of shipping, account has been taken only of those companies whose trade is conducted almost wholly in foreign waters. It is, of course, true that of the earnings of the vast shipping trade between the U.K. and the rest of the world a considerable proportion is derived from abroad; this income, however, is more appropriately viewed as payment for the export of shipping services.

[2] The investment in Mines increased from £72 million to £84 million as a result of new issues floated in 1931. The decline among Nitrates from £8·4 million to £5·1 million was due to the absorption of a number of British companies by Cosach, this company being registered abroad. Commercial and Industrial increased by £3·3 million owing to new issues. Elsewhere declines among Oil. Rubber, Tea, etc., were due to the writing down of capital.

Table IV

Nominal amount of British Capital outstanding invested in British Companies operating abroad, the Income derived and the amount repaid.

(£000's.)

	Share Capital.		Loan Capital.		
	Nominal Amount.	Dividends.	Nominal Amount.	Interest.	Repayment.
			1930.		
Dominion and Colonial Rails	1,381	27	26,927	1,416	52
Indian Rails	20,991	2,052	42,867	1,612	5,050
Indian Rail Annuities	—	—	25,816	1,284	1,126
American Rails	800	37	800	32	—
Foreign Rails	220,202	10,257	170,589	7,152	447
Banks and Discount Companies	26,591	3,431	—	—	—
Breweries	4,755	329	835	40	—
Canals and Docks	1,377	—	2,237	103	7
Commercial and Industrial	62,249	3,699	20,638	1,049	627
Electric Light and Power	7,905	569	6,112	393	55
Financial, Land and Investment	85,604	4,230	25,162	1,056	386
Gas	8,812	1,017	2,150	89	236
Iron, Coal and Steel	8,018	474	2,284	105	40
Mines	66,023	4,731	5,731	257	53
Nitrates	5,969	262	2,440	122	308
Oil	112,010	16,997	14,347	707	505
Rubber	84,245	4,465	5,849	368	73
Shipping	15,154	720	6,856	372	188
Tea and Coffee	39,542	2,907	2,561	135	24
Telegraphs and Telephones	23,940	2,041	4,560	265	38
Tramways and Omnibus	14,948	382	18,860	836	225
Waterworks	4,606	339	2,021	107	115
Total	815,122	58,966	389,642	17,500	9,555
			1931.		
Dominion and Colonial Rails	1,593	54	27,312	1,448	31
Indian Rails	20,871	1,768	43,171	1,583	95
Indian Rail Annuities	—	– –	25,579	1,272	1,156
American Rails	800	37	800	32	—
Foreign Rails	221,191	4,004	173,539	5,819	148
Banks and Discount Companies	26,339	3,300	—	—	—
Breweries	4,739	320	835	38	—
Canals and Docks	1,377	—	2,222	145	15
Commercial and Industrial	65,611	1,924	20,583	712	478
Electric Light and Power	7,758	608	6,841	316	153
Financial, Land and Investment	85,925	2,322	27,287	1,114	394
Gas	8,964	1,002	1,318	61	37
Iron, Coal and Steel	7,609	196	2,130	87	153
Mines	72,565	1,864	11,804	584	54
Nitrates	3,372	—	1,747	105	200
Oil	107,514	11,306	12,852	639	456
Rubber	81,951	218	5,685	157	60
Shipping	12,050	482	6,312	313	308
Tea and Coffee	38,610	1,735	2,542	122	26
Telegraphs and Telephones	23,948	1,657	4,349	190	61
Tramways and Omnibus	15,512	296	18,666	612	860
Waterworks	4,521	203	1,911	102	215
Total	812,820	33,296	397,485	15,451	4,900

SUMMARY

(£000's.)

	1930.	1931.
Dividends on Share Capital . . .	58,966	33,296
Interest on Loan Capital . . .	17,500	15,451
	76,466	48,747

The decline in dividends from £59·0 million in 1930 to £33·3 million in 1931 reflects the accentuation of the depression that took place during the year.[1] The following figures show the movement for the four-year period, 1929–32:

	Dividends.	
	Amount (£000's).	Per cent.
1929	67,674	8·4
1930	58,966	7·1
1931	33,296	4·1
1932 (provisional estimate)	27,300	3·4

It should be remembered, however, that a part of the decline in dividends remitted is due to exchange restrictions, especially in South America, where a substantial sum of service money has accumulated and would be transferred if exchange conditions permitted.

In addition to the heavy fall in dividends in 1931, interest on loan capital (as shown above) declined by £2 million, the average rate of interest on the total outstanding falling from 4·5 per cent. to 3·9 per cent. owing to default, particularly among Foreign Railways. Repayments fell from £9·6 million in 1930 to only £4·9 million in 1931 owing to the absence of maturities and to the suspension of sinking funds in some instances during the latter year.

GROUP III.

Foreign and Colonial Companies (registered abroad).

The securities examined under this heading are extremely diverse in character, and the type of company to which they belong varies from the company which is virtually British owned and controlled to the company in which British interests are

[1] In important sections of the above table dividends declined between 1930 and 1931 as follows: Foreign Rails 4·7 to 1·8 per cent.; Commercial and Industrial 5·9 to 2·9 per cent.; Mines 7·2 to 2·6 per cent.; Land and Investment 4·9 to 2·7 per cent.; Rubber 5·3 to 0·2 per cent.; Oil 15·2 to 10·5 per cent.

insignificant. They also relate to large numbers of companies whose shares and bonds are traded in internationally, as, for example, South African Mines, American Railways and Public Utilities, Canadian Power Companies, etc. Consequently purchases and sales between holders in the United Kingdom and abroad more readily affect the volume of British capital invested in these securities than in the securities of registered British companies operating overseas, which have practically no market outside the United Kingdom.

The total nominal amount of British capital invested in these securities appears to have declined from £782 million at December 1930 to £759 million at December 1931, but it does not follow that the whole of this decline was due to repatriation of capital. Other important factors were the winding up of insolvent enterprises, the writing down of capital accompanying financial reorganisation and the loss in market value of shares of no par value.[1] There is little evidence to show that repatriation in regard to these securities took place on a large scale during 1931, but it should be remembered that the body of investments examined above comprises mainly securities which are dealt in on the London Stock Exchange. There is also a large amount of investment in foreign securities not dealt in on the London market, and these investments have not been examined in detail. There is evidence to show that some of these securities were sold late in 1931, advantage being taken of the gold premium caused by Britain's abandonment of the Gold Standard. Further reference to this fact is made later on.

SUMMARY

(£000's.)

	1930.	1931.
Dividends on Share Capital . .	31,693	22,654
Interest on Loan Capital . .	19,350	18,192
	51,043	40,846

[1] In the case of securities of no par value there is no method of arriving at a figure corresponding to nominal value. These shares have consequently been included at the values in the balance sheets. The reduction in British holdings of share capital from £28 million to £13 million in the Iron, Coal and Steel section is due both to this factor and to the financial reorganisation of a group of Canadian companies in which British interests were substantial. The estimates of share capital for Foreign Rails, Gas and Waterworks show a decline from £40 million in 1930 to £32 million in 1931, due largely to the loss sustained by shares of no par value.

TABLE V

Nominal amount of British Capital invested in Foreign and Colonial Companies, the Income derived and the amount repaid.

(£000's.)

	Share Capital.		Loan Capital.		
	Nominal Amount.	Divi-dends.	Nominal Amount.	Inter-est.	Repay-ment.
			1930.		
Dominion and Colonial Rails	57,024	4,926	160,516	6,531	3,344
American Rails . . .	14,599	1,092	12,037	511	150
Foreign Rails [1] . . .	?	?	69,389	3,508	935
Banks and Discount Companies	25,999	2,115	18,631	1,175	313
Breweries	1,266	—	28	1	—
Canals and Docks . .	1,616	1,471	2,473	21	1
Commercial and Industrial .	73,788	7,003	24,807	1,875	789
Electric Lighting and Power.	11,042	750	31,483	1,754	915
Financial, Land and Investment	24,005	952	27,962	1,536	760
Gas [1]	?	?	—	—	—
Iron, Coal and Steel . .	28,237	1,425	8,748	536	182
Mines	70,558	7,339	3,561	202	223
Nitrates	—	—	3,125	219	144
Oil	21,520	999	—	—	207
Shipping	1,183	231	1,037	145	1,305
Telegraphs and Telephones .	4,761	342	14,039	650	304
Tramways	9,500	501	11,831	598	125
Waterworks [1] . . .	?	?	1,804	88	—
Total . . .	351,098	29,146	391,471	19,350	9,697
			1931.		
Colonial Rails . . .	60,050	3,543	160,848	6,559	240
American Rails . . .	17,985	1,014	9,527	412	165
Foreign Rails [1] . . .	?	?	65,389	3,096	974
Banks and Discount Companies	27,263	1,837	18,012	1,158	282
Breweries	1,266	—	28	1	—
Canals and Docks . .	1,616	1,539	2,491	22	—
Commercial and Industrial .	70,235	5,115	25,250	1,600	799
Electric Lighting and Power.	13,297	956	32,192	1,701	1,097
Financial, Land and Investment	24,555	656	25,080	1,370	485
Gas [1]	?	?	390	22	—
Iron, Coal and Steel . .	13,048	560	8,858	474	161
Mines	68,236	4,008	4,134	273	241
Nitrates	2,997	—	5,045	271	241
Oil	24,500	566	—	—	204
Shipping	5,359	298	811	51	42
Telegraphs and Telephones .	5,871	422	12,406	570	496
Tramways	9,500	501	11,520	531	158
Waterworks [1] . . .	?	?	1,773	81	—
Total . . .	345,778	21,015	383,754	18,192	5,585

[1] In the three sections for which precise estimates are not obtainable, rough approximations for 1930 were £39,965,000 Share Capital and £2,547,000 Dividends, increasing the totals to £391,063,000 Share Capital and £31,693,000 Dividends. The corresponding figures for 1931 are £29,734,000 Share Capital and £1,639,000 Dividends, increasing the totals to £375,512,000 Share Capital and £22,654,000 Dividends.

It will be noted that the decline in dividends[1] from £31·7 million to £22·7 million is not as heavy as the decline occurring among the British companies already examined. Some relief, it is true, was afforded by the gold premium included in dividend payments made in the last quarter of 1931, but it should be observed that Rubber and Tea companies, which were responsible for large losses in dividends during 1931, do not figure in the above table, British interests in foreign Rubber and Tea companies being negligible.

The decline in dividends during the four-year period 1929–32 is shown by the following figures of dividends distributed and the rate per cent. paid on the corresponding capital.

(£000,000's.)

	Amount.	Per cent.
1929	42·0	9·6
1930	31·7	8·1
1931	22·7	6·0
1932 (provisional estimate)	18·5	4·9

It is interesting to note that the average rate of dividends over each of the above years is greater on these securities than on the shares of British companies operating abroad for the corresponding year (see p. 193).

To some extent this extra yield may be regarded as a recompense for the greater skill and knowledge required in the selection of securities for investment in this group. Dividend payments in 1932 are tentatively estimated at £18·5 million, a decline of only £4·2 million on the preceding year. The decline would, of course, have been much greater in the absence of the premium on gold. The gold premium has been even more effective in preventing a decline in sterling income from loan capital in this group.

	British Income from Loan Capital.
1929	£19·7 million
1930	19·4 ,,
1931	18·2 ,,
1932 (provisional estimate)	19·7 ,,

Thus in spite of some degree of default it is estimated that the appreciation of gold in terms of sterling resulted in an increase of

[1] In individual sections of the above table the largest declines were Mines, £3·3 million; Commercial and Industrial, £1·0 million; Colonial Rails, £1·4 million. Dividend payments were increased in the case of Electric Lighting and Canals and Docks, the latter dividends being in respect of British Government holdings of Suez Canal shares.

£1½ million in 1932 in the income from British capital invested in the bonds of foreign and colonial companies.

We are now in a position to summarise the results so far obtained in the following table:

Table VI

Nominal amount of British Capital Overseas outstanding, invested in certain classes of securities, the Income derived and the amount repaid.

(£000's.)

	Capital.	Income.	Repayment.
A. 1929.			
Foreign and Colonial Governments and Municipalities	1,412,425	64,661	30,425
British Companies (registered in U.K.)	1,186,811	85,983	8,488
Foreign and Colonial Companies (registered abroad)	838,788	61,721	9,593
Total	3,438,024	212,365	48,506
B. 1930.			
Foreign and Colonial Governments and Municipalities	1,437,339	64,666	19,681
British Companies (registered in U.K.)	1,204,764	76,466	9,555
Foreign and Colonial Companies (registered abroad)	782,534	51,043	9,697
Total	3,424,637	192,175	38,933
C. 1931.			
Foreign and Colonial Governments and Municipalities	1,440,883	65,920	16,267
British Companies (registered in U.K.)	1,210,305	48,747	4,900
Foreign and Colonial Companies (registered abroad)	759,266	40,846	5,585
Total	3,410,454	155,513	26,752

As stated at the outset of this article, the above results deal with British nominal capital outstanding in Foreign and Colonial bonds, the securities of British Companies operating abroad, and the securities of foreign and colonial companies, dealings in which are permitted in the United Kingdom. The rate of income on this body of capital declined from 6·17 per cent. in 1929 to 5·61 per cent. in 1930 and to 4·56 per cent. in 1931. This decline would, of course, have been much more pronounced were it not for the fact that almost two-thirds of these oversea investments are in fixed interest-bearing securities (excluding fixed interest Preference stock). Thus in spite of some defaults during 1931, interest payments declined only slightly from £103 million in

1929 to £100 million in 1931, while dividends on ordinary and preference capital fell from £110 million in 1929 to £56 million in 1931.

In the surveys for 1929 and 1930 a figure of £300 million was taken to cover British holdings in foreign securities not dealt in in the U.K. and other forms of British investment not examined in detail. Analysis of the holdings of Investment Trusts and Insurance Companies which contribute largely to this figure indicates that in spite of some selling by such institutions late in 1931 the total volume of these securities did not suffer a considerable decline. In this respect it is worth noting that the funds available for investment by Insurance Companies, and the capital subscribed to Investment Trusts, are continually increasing notwithstanding economic depression, and that new outlets for investment were considerably restricted during 1931. Allowing for these factors, a net decline of more than £10 million in the above figure seems improbable and the figure of £290 million has been adopted to cover the balance of British Oversea Investments. The nominal amount of British capital for 1931 is thus increased to £3,700 million, yielding £169 million income.[1] The corresponding figures for 1930 were £3,724 million capital, yielding £209 million income. The next table indicates the decline in income from British overseas investments in the four-year period 1929–32, the figures for 1932 being provisional only:

Table VII

Income from British Overseas Investments, 1929–32.[2]

(£000's.)

	1929.	1930.	1931.	1932.
Foreign and Colonial Governments and Municipalities	64,661	64,666	65,920	60,000
British Companies (registered in U.K.)	85,983	76,466	48,747	42,500
Foreign and Colonial Companies (registered abroad)	61,721	51,043	40,846	38,200
Other Investments not covered by above	18,510	16,830	13,224	11,900
Total	230,875	209,005	168,737	152,600

The forecast of £152·6 million for 1932 is based on British

[1] The average rate of income derived from the £290 million British capital representing securities not quoted in the U.K. and other private investments is assumed to be the same as that accruing from the main body of investment examined in detail.

[2] The figures for 1932 are provisional.

capital outstanding at December 1931, but takes into account changes in sterling income due to abandonment of the Gold Standard. It is largely in consideration of this factor that the decline provisionally estimated for 1932 was only £16 million as compared with the £40 million decline in 1931; and an even smaller decline might have been assumed but for the impact of widespread restrictions on the remittance of funds from foreign countries during 1932.

The prospect for 1933 seems even less unfavourable. The default on Foreign bonds that occurred in 1932 has largely been checked and negotiations have been opened in many instances for the payment of interest in arrears. The beneficial effect of the premium on gold continues in the current year and has been reinforced by South Africa's abandonment of the Gold Standard late in 1932, resulting in a large increase in gold-mining profits. Finally, there are indications that the downward trend in trade and net earnings is less marked, while efforts are now being made to lessen the effect of exchange restrictions and to bring about reductions in tariffs. These considerations indicate that on balance a further substantial reduction in the current year in our income from overseas investments is unlikely.

Geographical Distribution of British Overseas Investments at December 1930

The following analysis deals with nominal British capital invested overseas amounting to £3,186 million, being confined entirely to securities in which dealings are permitted on the various stock exchanges of the United Kingdom. This constitutes 85 per cent. of the total British overseas investment at December 1930. The balance, some £540 million, not included in this analysis, consists of private investments and securities not dealt in in the United Kingdom, as well as the overseas assets of a number of British companies whose activities are spread throughout the globe. A geographical analysis of the nominal capital corresponding to these overseas assets cannot readily be attempted.[1]

The bonds of Governments and companies that have defaulted for many years and the assets of a large number of oil and other companies expropriated by Soviet Russia have been excluded.

[1] The £540 million not included in this geographical analysis are roughly distributed as follows: Dominions £200 million; United States £120 million; South America £130 million; Europe £50 million. It is hoped that a more accurate and detailed geographical analysis of this body of investment will be possible at a later period.

Table VIII

Geographical distribution of £3,186 million British Capital Overseas outstanding at December 1930.

(£000,000's.)

Dominions.	
Australasia	£494
India and Ceylon	458
Canada	446
South Africa	224
New Zealand	123
Malaya [1]	108
British W. Africa	46
West Indies	40
Other British Colonies	48
Total Dominions	£1,987
Foreign Countries.	
Europe [2]	£245
Argentine	360
Brazil	151
Chile	49
Rest of South America	83
Mexico [3] and Central America	50
United States [4]	81
Japan	63
China	40
Other Asiatic Countries	47
Non-British Africa [5]	29
Total Foreign Countries	£1,198

Although the above figures as a whole cover 85 per cent. of British capital invested abroad, the percentage covered in the case of individual countries varies considerably. For example, while the above figures for Australia and New Zealand may be assumed to cover nearly the whole of our investments in these Dominions, the ascertained percentage is only about 40 per cent. for the United States, and probably less than 80 per cent. for the Argentine [6] and Brazil. In the case of India and Canada the percentage is about 85 per cent., but total investment in India and China would have to be substantially increased if proprietary holdings by British nationals permanently resident in these

[1] Malaya is here taken to include the whole of the Malayan Archipelago, including non-British territory and the Dutch East Indies.

[2] The whole of Turkey has been included in the European figures.

[3] The total for Mexico would be considerably increased if capital long in default were included.

[4] The total amount of long-term British capital in the United States, including the subsidiaries and branches of British Companies, and securities not dealt in in the U.K., is roughly estimated at £200 million nominal value.

[5] Including Egypt.

[6] The smaller percentage in the case of the U.S. and the Argentine is due to the large amount invested in securities not quoted in the U.K.

countries are included. The following table indicates the distribution of the above body of investment according to various classes of enterprise :

TABLE IX

Distribution of £3,186 million British nominal capital in various classes of enterprise over the territories of the world.

(£000,000's.)

Area.	Governmental and Municipal.	Railways.	Public Utilities.	Mines.	Miscellaneous.	Total.
Australasia	432	2	9	9	42	494
New Zealand	110	—	—	—	13	123
Canada and Newfoundland	97	213	32	2	102	446
South Africa	118	20	3	50	33	224
India and Ceylon	261	90	12	14	81	458
Malaya [1]	4 [1]	—	4	8	92	108
Other British Territories	65	29	3	9	28	134
Total Dominions	1,087	354	63	92	391	1,987
Europe (including Turkey)	120	30	18	6	71	245
South America	134	353	54	6	96	643
U.S., Mexico and Central America	2	49	29	10	41	131
China and Japan	83	—	5	1	14	103
Other Foreign Territories	14	2	3	3	55	77
Total Foreign Territory	353	434	109	26	277	1,199
Total—the World	1,440	788	172	118	668	3,186

[1] Malaya including foreign territory as well as British. In particular, the £4 million under Governmental and Municipal represent the Bonds of the Dutch East Indies Government held in the U.K.

Although the geographical distribution shown above applies to a total of £3,186 million of capital outstanding at December 1930, such changes as have since occurred are not likely to have modified the position appreciably. About two-thirds are invested in the Dominions. The capital invested in Australia and New Zealand in the main takes the form of Government and Municipal loans. In the case of Canada less than a quarter consists of Government securities, but a substantial proportion of the £213 million invested in Canadian Railways in fact carries the Government guarantee. Miscellaneous enterprise in the Empire includes a single item of £92 million largely invested in Malayan rubber

production; and about one-half of the £81 million attributed to India represents ownership of tea plantations.

In South America, Railways account for over one-half of the British capital invested there, and it is of particular interest to note that investments in Railways represent nearly a quarter of British overseas capital throughout the world. Indeed the figure would be still greater if account were taken of the large proportion of Government borrowing by China, Japan and others applied to the financing of railway construction.

Of £118 million in Mines, £92 million are invested in the Colonies, £50 million in South Africa being connected largely with the production of gold.

Balance of Payments.

In the annual survey for 1930 [1] it was pointed out that the figure obtained for total Income from British Overseas Investments should not be used as a net figure for the purpose of estimates of the Balance of Payments. For apart from the deduction that must be made on account of income accruing to foreigners from investments in the U.K., account must be taken of the net amount placed to reserve by British Companies operating abroad, and of the cost of maintaining their head offices at home (see p. 191, ECONOMIC JOURNAL, June 1932). Moreover, the substantial default on foreign Government and commercial bonds during last year raises an important consideration connected with the present method of estimating Balances of Payments. A Balance of Payments may represent the difference between the annual *cash* receipts and *cash* outgoings of a country in respect of all transactions of a revenue character. The official estimate of the Balance of Payments of the United States appears to be based on this model. On the other hand, a Balance of Payments may represent the annual net balance of all *claims* arising out of transactions or contracts of a revenue character, even though actual remittance in some cases may be deferred. Much confusion of thought has arisen as a result of no clear distinction being drawn between the two methods and many current estimates suffer from this inconsistency. The latter method, which is the one adopted by the Board of Trade in its estimate of the Balance of Payments of the United Kingdom, gives a truer account of the country's trading position. For example, in its estimate for 1932 the Board of Trade includes the value of the whole of our exports during the year, although, in fact, a part

[1] See ECONOMIC JOURNAL, June 1932.

was not paid for, owing to exchange restrictions and difficulties existing in many countries. Again, in the past, the whole of the net earnings abroad of British Companies appear to have been included, although in practice large sums may not have been remitted home. From this point of view the earnings of British Railways in the Argentine must appear in these Board of Trade returns as a credit item, although in many instances dividends were suspended owing to the impossibility of remitting funds. In so far as payment of the interest on many Foreign bonds has been made in foreign currencies or funded, as in the case of Brazil, such interest must logically be regarded in the same light and therefore included in the Balance of Payments. In essence the effect is the same as if these sums had been transferred and the funds then re-exported as capital.[1] Thus in so far as interest due is deferred or funded, the aggregate of British capital abroad on short or long term is correspondingly increased, and the net increase may conveniently be regarded as an "involuntary export" of British capital. The provisional estimates for 1932 (see Table VII) indicate a decline of nearly £6 million in the income from Foreign and Colonial Government and Municipal securities, and of another £6 million in the income from British Companies abroad, a total of £12 million in these two groups. In view, however, of the above considerations, it would seem consistent to include only a part of this decline in the Balance of Payments.

New Overseas Investments in 1931 *and* 1932.

In previous articles figures have been given showing the net amount of new long-term overseas investments in each year since 1927, exclusive of capital movements due to the purchase or sale of existing securities, and money directly subscribed to new issues in overseas countries. This net "new money" invested abroad is equal to the British subscriptions to oversea loans less repayments to British nationals through the operation of sinking funds and through loan maturities.

The figures on p. 204 do not give an adequate picture of the net overseas investments during any of the above years, since they exclude other outward capital movements. They reveal, however, the striking decline that has been taking place during the last four years, while in 1932 for the first time in many years, due to the incidence of the Treasury embargo on foreign loans, repayments actually appear to have exceeded subscription to new overseas

[1] The effect is not exactly the same since these funds are for the time being immobilised.

(£000,000's.)

	British Subscriptions to New Oversea Issues.[1]	Repayment to U.K.	"New Money"[2] Invested.
1929	96	49	+ 47
1930	98	39	+ 59
1931	41	27	+ 14
1932 (provisional estimate) .	35	42	-- 7

[1] These figures exclude conversions but include issues the proceeds of which were used for redemption.

[2] The "New Money" invested in 1927 and 1928 is roughly estimated at £132 million and £108 million respectively.

issues floated in London. This decline in new overseas investments, accompanied during the last two years by a moderate repatriation of long-term capital, indicates that the total volume of these investments is declining. A similar trend in the total volume of overseas investments last occurred during the early years of the War, when American securities were sold in large quantities to provide funds for War purposes.

Although, as already noted, the position in the current year is much more favourable and the adverse tendencies in the balance of payments and oversea investment income have largely been checked, it is as yet too early to discuss the possibility of the resumption of foreign lending either by London or foreign centres. Political uncertainty, the limited operation of the Gold Standard and restrictions on foreign exchange dealings, high tariffs and other impediments to trade all tend to postpone indefinitely such a revival.

At the same time, there are indications that since the abandonment by Great Britain of the Gold Standard in September 1931, the process of readjustment of the factors responsible for persistent disequilibrium in world economy has been greatly accelerated. The adverse trade balances of many debtor countries have been noticeably reduced; labour and other industrial costs have to some extent been cut; and conversion schemes have substantially relieved the burden of indebtedness in several important countries. In spite of this, progress towards the readjustment essential to solid recovery remains slow and a resumption of foreign lending at this stage, even though accompanied by a rise in world prices, would only encourage debtor countries to postpone rather than proceed with the readjustments indispensable to genuine recovery.

ROBERT KINDERSLEY

THE NATIONAL INCOME AND THE THEORY OF PRODUCTION

Last year I estimated[1] (*The National Income*, 1929–31, Macmillan) a social income of some £3,500 m. in 1931, as against £3,590 m. in 1924 and a maximum figure of just under £4,000 m. in 1929. These estimates, it may be said again, refer to the social or net income and thus exclude all "transfer" incomes such as interest on the National Debt, old age pensions and the like; include at cost price the services performed by the State and local authorities; include all paid domestic work; and do not credit or debit the total with changes in the valuation of securities, fixed capital, or stocks. Now that a reasonable number of profit statistics relating to the year 1932 are available it is possible to make a rough estimate of the national income for that year by the same methods as used above.

But in addition to this I have endeavoured to develop a technique for the continuous measurement of the national income by two new and quite independent methods, one being based on statistics of consumption and investment, and the other on statistics of wages and profits. This makes possible an estimate not only of the income for 1932, but also of the running rate of earnings up to date in the current year. For 1932. these three methods give results within 1 per cent. of each other, as shown below. We may begin by estimating the income for 1932 along the old lines. In 1929 wages and salaries totalled £2,320 m.; rent of land and buildings £293 m.; Government income £33 m.; employers' rates and social insurance payments £120 m.; net income from overseas, including commissions and short interest, amounts written off stocks and head office remittances, some £378 m.; amounts written off stocks at home £65 m.; profit and interest £787 m., of which some £100 m. represented debenture interest (*loc. cit.*, pp. 70, 72 and elsewhere), totalling £3,996 m.

In 1932 Dr. Bowley's wage-index averaged 95·5, as opposed to 99·3 in 1929, and the Ministry of Labour's estimates of the numbers in employment month by month average 835,000 less.

[1] I should like to draw attention to a copying error in this book, in Table XXVI, p. 76. The numbers in the last line but two should read 5,065,000 and 5,270,000 instead of 14 millions odd, and the diagram should be altered correspondingly.

Multiplying the 1929 total by both these factors, we may estimate £2,143 m. for *wages and salaries*. The index figure of rents showed a rise of a little over 1 per cent. during this period (as more houses become decontrolled), while new buildings of an annual value of some £9 m. came into occupation each year. Allowing for some reductions of rents, we may put the figure for *rents* at £318 m.

Income from overseas, computed as above, shows, as might be expected, a high correlation with the Sauerbeck index-number of (sterling) prices of primary commodities, the latter being corrected for trend. Over the period 1922–31 this income (omitting loan interest) is correlated with prices to the extent of $\cdot 86 \pm \cdot 05$. The downward trend of world prices of primary commodities over this period is not reflected in the income figures, and is clearly due to the downward trend of costs of production. As the correlation is so high, I have made use of it to construct an equation for use in interpolating and extrapolating estimates of income from overseas by means of the Sauerbeck index.

In 1932 sterling prices of primary commodities were only 2 per cent. lower than in 1931, and the fall in costs of production probably began to catch up the fall in prices. The equation mentioned above indicated some recovery in overseas income during the last year: and taking into account defaults on fixed interest payments we may write the total *income from overseas* at £228 m. I do not think the Board of Trade have given adequate grounds for their estimate of a further heavy fall between 1931 and 1932.

If, as the British Government did, we reckon the payment to U.S.A. last December as a capital payment, we can put *Government income* for the year at £15 m. *Employers' rates and social insurance payments* stood at £124 m. The *amount written off stocks*, which has to be re-included, calculated in the same way as before, gives £46 m.

I have not yet been able to make a detailed investigation of profit statistics for 1932. Taking the *Economist* figures as they stand, summing the reports of home industries published between October 1932 and April 1933, and approximately weighting the groups according to the relative importance of the different industries as contributors to the total of profit, a general average is obtained showing profits in 1932 as 10·5 per cent. less than in 1931, or 40·4 per cent. below 1929. Between 1931 and 1932 profits in public utilities showed a rise of 5 per cent.; in heavy industry a fall of 23 per cent.; textiles showed a considerable rise from the low figures of the previous year; and the great mis-

cellaneous group showed a fall of 8 per cent. Assuming that debenture interest has remained unchanged, we can estimate the total of *profits and interest* at £510 m. in 1932.

We thus obtain a final estimate of £3,384 m. An interesting confirmation of this can be obtained from the Budget estimates of income tax yield in 1933–34 as against 1932–33. In the main these estimates are based on the income earned in 1932 and 1931 respectively, and the total estimate shows a fall of 4·6 per cent. between the two years. Wages and salaries below £250 contribute only a very small proportion of the total yield of Income Tax. These and the other non-taxable items in the national income add up to £1,953 m. and £1,872 m. respectively in 1931 and 1932. To the residue of £1,546 m. in 1931 we must add £276 m., the interest paid on the National Debt in that year, which was assessed to tax in the same year, and is excluded from our national income estimates. Reducing this total of £1,822 m. by 4·6 per cent. we get an estimate of £1,739 m. taxable income (as defined above) for 1932, of which £224 m. represents interest on the National Debt. Adding the total of wages and small salaries we thus get an estimate of £3,387 m. for the national income in 1932. This remarkable closeness is, of course, accidental, but this method certainly provides a general confirmation.

Neither of the above methods of estimation, however, is capable of being continuously applied to give up-to-date results. They are designed more in the nature of a check on the two methods which follow. The deductions and the tables below can best be elucidated by means of symbols, which are virtually the same as I have used in my previous work (*loc. cit.*, pp. 127–8).

Let F be the amount spent on consumption, I the current value of new investment, E the total of costs of production, including a normal profit which must be arbitrarily defined, Q the excess or deficit of current profits above or below normal, O the quantity of output, and Π the general price level of current output.

Previously I used as my working equation:

$$Q = \left(\Pi - \frac{E}{O}\right) . O,$$

a rearrangement of one of the fundamental equations in Mr. Keynes's *Treatise on Money*. This I shall continue to use; but when direct measurement of F is possible, we can use a still more fundamental, but as yet unpublished, equation of Mr. Keynes's which obviates the necessity of arbitrarily defining normal profits:

$$\Delta Q = \Delta F + \Delta I - \Delta E.$$

In plain English the increase in consumption during a period, plus the increase in investment, less the increase in total costs of production, required to meet these new demands, represents the rise in profits during that period.

Statistics of retail sales going back to the middle of 1929 are now available. I have used them as the principal items in a new quarterly index-number of the *value of consumption*, which is weighted as follows: retail sales of food 16, of other commodities 17, rents of dwellings 8, railway passenger receipts 2, postal receipts 1, registrations of new motor cars 1. Rents have been given a high weighting in order to cover also a number of other almost constant items of expenditure, such as rate services, domestic service and the like. The series is corrected for seasonal variations, as are all the others included in the table.

Apart from this new series, I have proceeded more or less by my previous methods in calculating Π, E, O and I, but I have now brought all these series up to date, and compiled them quarterly back to the beginning of 1927, which is a convenient starting-point.

In calculating O, E and Π I have made a small change from my previous method. I include the output, costs and prices of industry, agriculture, all forms of transport, distribution and building, and the incomes arising from rents and from overseas. These between them cover over 80 per cent. of the national income. But in these calculations I have not attempted to include any estimate for the remainder, consisting of various services other than transport and distribution, such as education, domestic work, professional and Governmental services, for which the data on costs are very inadequate and where measurement of "output" means very little. We must assume that the remaining 80 per cent. of the national income will give representative figures of general prices, costs and profits.

The figures given below must all be considered provisional, but I am hopeful that they will not be subject to any big amendment. In these matters one has to wait years before getting final figures, but one of the purposes of this article is to show that it is possible to develop methods which keep the figures fully up to date, methods which can be checked against each other, of a good degree of accuracy.

I have made a number of changes in my calculation of the total of investment, partly as the result of a new investigation into stocks and working capital, partly from the use of data now available from the 1930 Census of Production on the value of

the output of fixed capital goods, which I have not space to describe fully here, but will elsewhere. In general it may be said that the estimates are based on statistics of employment in the engineering, building and contracting, and shipbuilding trades, the recorded maintenance and capital expenditure of the railways (which even now account for 10 per cent. of the whole annual total of gross home investment), and statistics of the import and export of finished capital goods. Investment is here reckoned gross, *i.e.* including expenditure on maintenance and depreciation. I have also made more comprehensive the statistics dealing with stock-in-trade and working capital. Fairly full data on retailers' stocks are now obtained by the Bank of England, and changes in the working capital of industry are estimated from a new sample of over a hundred companies. The figures given below refer not to the *change in value*, but to the *value of the change* in working capital from quarter to quarter; that is, changes in its physical quantity, valued at current prices. In my previous investigation I underrated the magnitude of these fluctuations. It has been suggested by Mr. Hawtrey, and by others, that changes in stocks or in working capital are not *sui generis* with investment in fixed capital. I have therefore indicated these figures separately in the table and diagram, though for the present at any rate I am including changes in stocks, etc. with investment in the price equations.

For a base period for the index-numbers I take the average of the years 1927–8–9. In my previous investigation I took 1924–9, omitting 1926, as the period for which profits were to be considered " normal " : we can substitute the new period without making more than a small difference to the figures of Q. In the calculations which follow, the total value of Q is estimated from the figure relating to that part of income included in the index-numbers. It is derived from a comparison of prices and costs, that is Π and $\frac{E}{O}$.

" Variable output " is defined as the output of industry, building, transport, and distribution, excluding income from abroad, rents, and agriculture, or that part of the national income which is fully susceptible of variation from causes arising within this country. It will be shown below that this can be calculated from Q by a certain relationship which holds with remarkable comprehensiveness.

The bases for the E and F series are the average recorded national income over the base period 1927–9. But apart from

this element the two methods of measuring the national income, as $E + Q$, or as $I + F$, are totally independent. The closeness of agreement of the quarterly figures during a period of big fluctuations is very satisfactory, the average discrepancy being about 2 per cent. My method of calculating E probably gives the figures a slight upward bias, which may account for the former total generally being a little higher than the latter. For the total of the year 1932 the two methods give £3,853 m. and £3,878 m. These refer to gross income, and deducting £440 m. for depreciation (*loc. cit.*, p. 114) we get alternative estimates of £3,413 m. and £3,378 m. We thus have three well-grounded methods which give estimates for 1932 of £3,413 m., £3,378 m. and £3,384 m., and a fourth which provides a rough check by means of the Budget estimates indicates £3,387 m.

The fall in income between 1931 and 1932 is mainly due to the fall in price. Real income in 1932 may be reckoned at 0·8 per cent. below 1931, 10·0 per cent. below 1929, and 8·9 per cent. above 1924.

The table and diagram bring out the greater *relative* stability of consumption as compared with investment, but also show that the absolute fluctuations are of about the same order of magnitude, and, what is perhaps more important, they are generally in the same direction. Savings, defined as the amount by which consumption falls short of *normal* income, have not fluctuated very much since 1929. Through 1930 there was a fall in savings—that is to say, consumption was maintained while income was falling—but this process was reversed in 1931, and the financial crisis of the fourth quarter of the year gave impetus to a movement (towards increased saving) which had already begun. There has been little movement since then.

Another interesting feature is the apparent rise in working capital (stocks) on the impact of depression in 1930. This was reflected in the figures of Q, but in this case at any rate it was not *sui generis* with the figures of other forms of investment, and in fact does not appear to have had the effect on output that we might have expected from any other form of ΔQ.

We may now turn to the data concerning the variable element in output. The data over the period 1924 to 1929 give a linear upward trend of some $2\frac{1}{2}$ per cent. per annum. The figures of the deviation of current output from this trend appear to be functionally related to Q. This relationship is plotted in Diagram II, the date corresponding to each point being indicated. This curve is nothing less than the fundamental elasticity of supply of

Table I.

	1927.				1928.				1929.			
	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.
Wages and salaries under £250	435	436	439	434	433	431	430	431	435	439	440	438
Income from abroad	92	92	92	94	90	95	93	95	103	100	101	98
Other normal income	374	375	378	380	382	384	386	387	388	389	390	390
E (£ m. per quarter)	901	903	909	908	905	910	909	913	926	928	931	926
O (Index-number)	97·8	98·5	99·2	98·5	98·6	98·8	97·5	99·1	102·8	103·3	104·3	103·9
Π (,, ,,)	105·5	103·8	101·2	99·1	100·0	101·5	99·1	99·8	100·2	97·5	96·8	96·0
Q (calculated for whole national income, £ m.)	+51	+37	+10	−18	−4	+9	−31	−11	+18	−8	−9	−17
Home investment—fixed capital	156	159	163	157	156	156	153	154	154	160	162	162
Home investment—working capital	−3	+25	+45	+26	−34	−16	+17	+21	+22	−2	+13	+2
Investment overseas	+8	+32	+32	+49	+24	+33	+38	+55	+41	+37	+42	+31
Total I (£ m.)	161	216	240	232	146	173	208	230	217	195	217	195
F (£ m.)	—	—	—	—	—	—	—	—	—	—	860	865
Estimated total E (£ m.)	1050	1066	1072	1077	1076	1082	1081	1087	1099	1103	1108	1105
National income: $E+Q$	1101	1103	1082	1059	1072	1091	1050	1076	1117	1095	1099	1088
,, ,, $I+F$	—	—	—	—	—	—	—	—	—	—	1077	1060
"Variable" output	97·3	98·1	99·5	98·5	98·9	98·1	97·3	98·5	101·8	103·2	104·2	103·9
Output per employed person	99·0	98·7	99·6	98·7	99·2	99·0	98·4	99·3	101·5	102·0	102·1	102·0

	1930.				1931.				1932.				1933.
	1.	2.	3.	4.	1.	2.	3.	4.	1.	2.	3.	4.	1.
Wages and salaries under £250	429	419	415	411	400	398	392	400	392	385	383	388	384
Income from abroad	91	85	78	74	63	61	57	63	65	60	62	60	60
Other normal income	391	392	392	393	393	394	395	395	396	396	397	397	398
E (£ m. per quarter)	911	896	885	878	856	853	844	858	853	841	842	845	842
O (Index-number)	103·0	99·6	98·0	95·6	93·6	93·5	92·8	94·9	95·7	93·7	93·1	93·8	95·3
Π (,, ,,)	96·0	95·6	95·5	95·0	95·4	93·8	91·7	92·6	91·0	92·3	91·3	90·7	90·0
Q (calculated for whole national income, £ m.)	−9	−30	−35	−56	−48	−60	−78	−73	−65	−59	−77	−79	−68
Home investment—fixed capital	160	154	153	147	149	144	140	138	133	129	129	130	125
Home investment—working capital	+5	+30	+21	−27	+5	−4	−11	+20	−3	−23	−35	+19	−9
Investment overseas	+20	+13	+7	+6	−4	−15	−27	−22	0	+18	+4	+20	+23
Total I (£ m.)	185	198	181	126	150	125	102	136	130	124	98	169	139
F (£ m.)	835	855	845	851	835	810	816	800	816	795	781	805	796
Estimated total E (£ m.)	1092	1077	1069	1058	1040	1037	1030	1043	1039	1031	1031	1032	1029
National income: $E+Q$	1083	1047	1031	1002	992	977	952	970	974	972	954	953	961
,, ,, $I+F$	1040	1053	1026	977	985	935	918	936	946	919	879	974	935
"Variable" output	103·0	98·7	97·4	94·2	92·1	92·1	91·4	92·9	93·4	91·2	89·6	91·1	92·1
Output per employed person	103·2	101·1	101·0	98·9	98·9	98·7	98·2	97·8	99·3	98·9	97·4	97·4	99·0

DIAGRAM I.

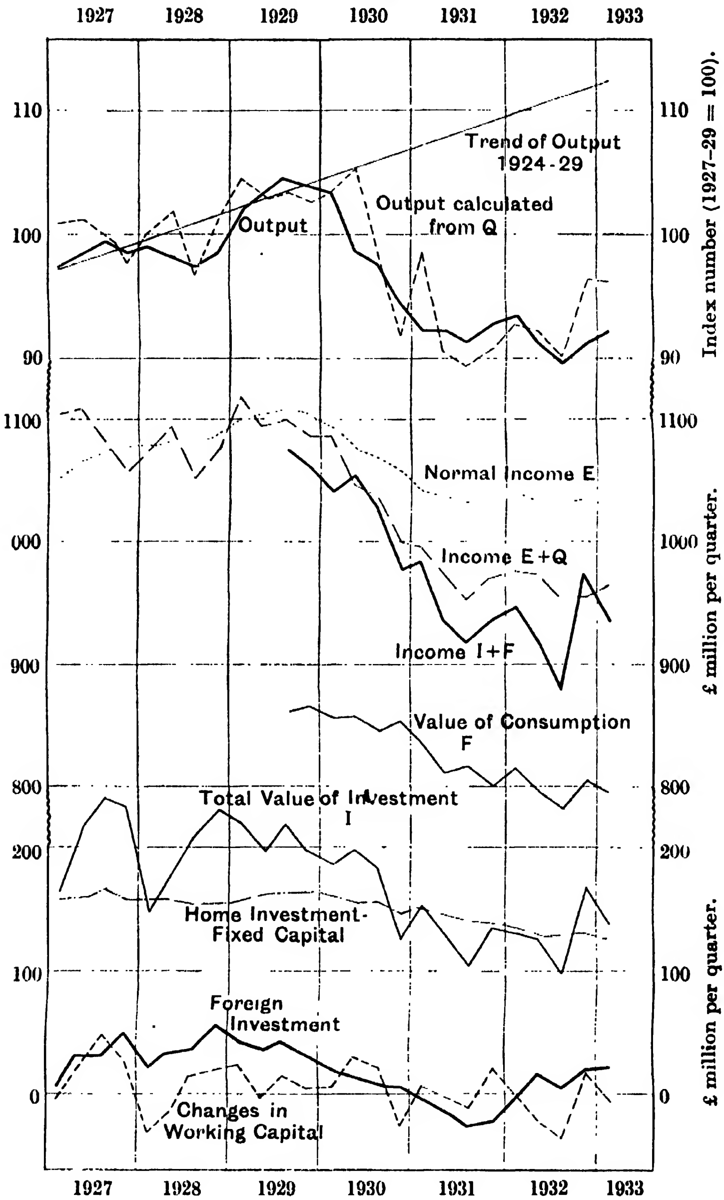
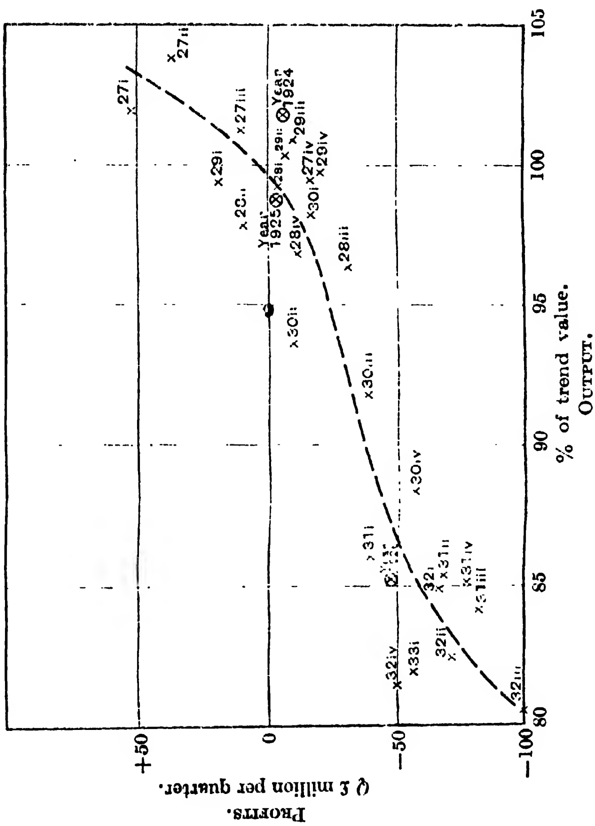
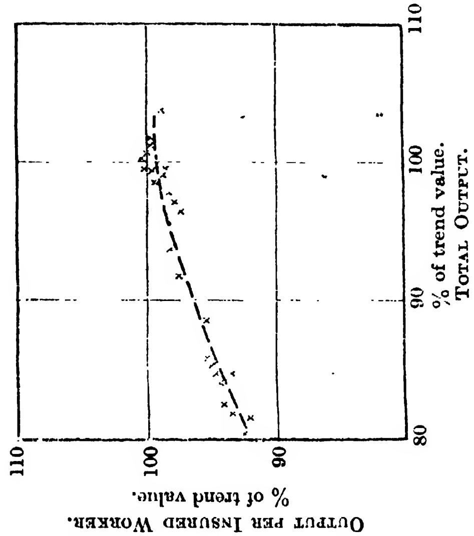

1927
1928
1929
1930
1931
1932
1933
110
100
90
1100
000
900
800
200
100
0
Trend of Output 1924-29
Output calculated from Q
Output
Normal Income E
Income E+Q
Income I+F
Value of Consumption F
Total Value of Investment I
Home Investment-Fixed Capital
Foreign Investment
Changes in Working Capital
Index number (1927-29 = 100).
£ million per quarter.
£ million per quarter.

DIAGRAM II.


Profits.
£ million per quarter.
+50
0
−50
−100
80
85
90
95
100
105
% of trend value.
Output.


Output per Insured Worker.
% of trend value.
110
100
90
80
90
100
110
% of trend value.
Total Output.

output in general, in response to changes in profit. After all, the curve is of the shape which theory would have led us to expect, with comparatively low elasticities at the high and the low levels of output, but a high elasticity over a critical middle range. From the curve which is here drawn in freehand, data are taken in order to calculate for Diagram I a "calculated value" of output corresponding to current values of Q. This accords very closely with actual output.

This relationship between Q and output, depicted in Diagram II, appears to indicate that there is at any time a level of output corresponding to fairly full employment of resources (although this level moves upwards with time), which cannot be exceeded without a big rise of profits and prices, and that at certain dates in recent years we have been near to this level. At the present time this figure of maximum capacity represents a level 25 per cent. above our current level of industrial activity, or an increase of employment of only about a million and a half.

In Diagram II are plotted also the data relating to output per insured person employed. This shows an upward trend of 1 per cent. per annum. When trends are removed, this quantity can be expressed as an almost linear function of output with a very high degree of precision. Calculated as a linear correlation, this relationship works out at $\cdot 95 \pm \cdot 01$. This means that over a big range of output changes we are in a position to calculate wage costs, as well as changes in the level of profits, and hence the price-level corresponding to each level of output.

These relationships are new and unexplored, but I am publishing them at this stage because the data seem to support them quite firmly, and because they do seem to have a great intrinsic interest. There are many baffling problems connected with employment, for instance, on which they ought to throw a good deal of light. In order to reach the happy condition which I have described above, with output raised 25 per cent. and some million and a half more in employment, when we would be approaching the limit of our productive capacity, we should have *to raise Q by some £300 m. a year above its present level*, and the fundamental equation to which we must work is

$$\Delta Q = \Delta I + \Delta F - \Delta E.$$

This is a tall order for the most enthusiastic supporter of loan expenditure; but if, as the other school of thought urges, these results are to be attained by reducing costs, we must find some way of reducing costs without reducing consumption. Otherwise

we shall be back where we started. If private expenditure by the rich, or reduction of savings, is to do the job it must be raised by some 30 per cent.

I hope to be able elsewhere to bring the figures and diagrams up to date periodically, and to revise the data.

I must conclude by mentioning a vehement attack on my whole work in the field of the national income, which has been made by Dr. E. C. Snow in the *Journal of the Royal Statistical Society*. I hope to enter more fully into this controversy elsewhere, but I can give a short answer to the main criticisms which he makes. He claims (i) that I have under-estimated the numbers of independent workers by some 300,000, and over-estimated the number of salary earners by the same amount; (ii) that the average income of the independent workers below Income Tax level is £120, not £96 as I have estimated; (iii) that my methods of estimating the value of industrial output are totally unreliable.

(i) Dr. Snow must preserve a sense of proportion. If the whole of this first contention is true, some 300,000 incomes will have to be transferred from one class to another, but the difference in the total of the national income will be about £1 m. For the average incomes of the two classes are almost equal. In fact, my estimate of the decline in the number of independent workers and small employers is not based solely on extrapolation, but agrees very closely with the *difference* between the rates of increase of the numbers under Health Insurance and the whole adult population over this period. An estimate of the increase in the number of salary-earners at the rate of 100,000 per annum he describes as "so surprising that it should surely have arrested the author's attention." The number of income-tax assessments on non-wage-earners, however, has been showing an annual increase of some 90,000, and the recent extension of the scope of income tax has revealed that my estimates are if anything on the low side. The new income-tax figures reveal that the numbers of people receiving incomes not from wages increased by about 2,000,000 between 1921 and 1930. The main part of this increase was clearly salary-earners.

(ii) Dr. Snow supports his figure of £120 from "knowledge of the distribution of incomes in general." This is without ground. Apart from certain entirely speculative estimates, the only information we have on the frequency distribution of these lower incomes are data collected by Bowley and Stamp relating to salaries. The average here works out at £100. For independent workers, in their estimate, Bowley and Stamp took £98 as

the average of incomes below £150, as against my estimate of £96.

(iii) In this case we can submit my methods to the test of experience. Writing before the results of the 1930 Census were available, I made an estimate of the net output for 1930, a difficult quantity to estimate because it represents the *difference* between two unknown quantities, and particularly difficult at a time of rapidly changing values such as 1930, but my estimate was within 3½ per cent. of the correct figure.[1]

COLIN CLARK

[1] My estimate for the total net output of 1930 was £1,701 m., or £1,653 m. excluding Northern Ireland and the laundry trade. The published data for firms employing over ten workers, allowing for outstanding returns, show £1,468 m. for 1930. The smaller firms, including some whose output was estimated, had an output of £113 m. in 1924. Their distribution was not representative, as they were concentrated in certain prosperous trades such as building, motor repairing, etc., which trades show a weighted average increase of 14 per cent. between 1924 and 1930. We may put their output in 1930 at £129 m., and the whole at £1,597 m. as against my estimate of £1,653 m.

§ 1. THE competition between the road motor and the railways is not a simple case of competition between two rival methods of providing a service analogous to the competition between two commodities. Dissimilarity in the internal organisation of the two industries introduces complications. The railways are monopolised. Their charging system consists of a structure of differential rates laid down by law, and the exercise of their monopoly has had to be hedged about with safeguards which disable them to-day from competing effectively with road motor enterprise. The road transport industry is highly competitive, and, as in most industries, competition among themselves has forced road hauliers to charge a single price for the transport of goods by road, and has made unnecessary any further safeguards of public interest.

§ 2. The charging powers of the railway companies are prescribed by Part III of the Railways Act of 1921. The Act establishes a General Railway Classification of Merchandise (the G.R.C.) and a Schedule of Standard Charges.

The G.R.C. divides the goods offered for transport into twenty-one categories or "classes." To each of these classes there is applied a Standard Rate. Goods in Class 21 are charged at the

Standard Rates, in shillings per ton.

CLASS

Distance (Miles).	Rates include Charges for Collection and Delivery. (C.D. rates.)						Excluding Collection and Delivery (S.S.).			Traffic in Owners' Wagons.	
	20.	19.	17.	15.	13.	11.	9.	7.	5.	3.	1.
6	23/3	21/10	18/4	14/7	13/7	12,3	5/5	4,7	2/4	2/2	1/5
10	25/9	23/8	20/4	16/2	15/0	13/6	6/7	5/7	3,2	2/11	2/1
20	32/0	29/0	24/7	20/1	18/4	16/6	9/5	8/2	5/4	4/9	3/8
30	37/2	33/4	28/0	23/0	20/9	18/8	11/2	9/8	6/5	5/8	4/6
40	42/4	37/7	31/7	25/10	23/1	20/9	12/11	11/2	7/5	6/7	5/3
50	47/6	42/1	34/10	28/9	25/6	22/11	14/8	12/8	8/6	7/6	6/1
60	51/9	45/5	37/8	31/3	27/6	24/8	16/1	13/9	9/3	8/2	6/6
80	60/3	52/6	43/3	36/3	31/6	28/2	18/11	16/0	10/10	9/6	7/5
100	68/9	59/7	48/10	41/3	35/6	31/8	21/9	18/3	12/5	10/10	8/4
120	76/1	65/5	53/1	45/0	38/5	34/1	23/8	19/10	13/8	12/0	9/2
140	83/1	71/3	57/4	48/9	41/4	36/6	25/7	21/5	14/11	13/2	10/0
160	90/3	77/1	61/7	52/6	44/3	38/11	27/6	23/0	16/2	14/4	10/10
200	104/7	88/9	70/1	60/0	50/1	43/9	31/4	26/2	18/8	16/8	12/6
250	122/10	103/4	80/8	69/4	57/4	49/9	36/2	30/2	21/10	19/7	14/7
300	140/5	118/1	91/4	78/8	64/8	55/10	40/11	34/1	24/11	22/6	16/8
400	176/3	147/1	112/2	97/6	79/3	67/11	50/6	42/0	31/2	28/4	20/10

Standard Rates, in pence per ton-mile.

CLASS

Distance (Miles).	Including Charges for Collection and Delivery. (C.D. rates.)						Excluding Collection and Delivery. (S.S. rates.)			Traffic in Owners' Wagons.	
	20.	19.	17.	15.	13.	11.	9.	7.	5.	3.	1.
6	46·50	43·67	36·67	29·17	27·17	21·50	10·83	9·17	4·67	4·33	2·83
10	30·90	28·40	24·40	20·60	18·00	16·20	7·90	6·70	3·80	3·50	2·50
20	19·20	17·40	14·75	12·05	11·00	9·90	5·65	4·90	3·20	2·85	2·20
30	14·20	13·33	11·20	9·20	8·30	6·80	4·47	3·87	2·57	2·27	1·80
40	12·62	11·27	9·48	7·75	6·93	6·23	3·88	3·35	2·23	1·98	1·58
50	11·40	10·10	8·36	6·90	6·12	5·98	3·52	3·04	2·04	1·80	1·46
60	10·35	9·08	7·53	6·25	5·50	4·60	3·23	2·75	1·85	1·63	1·30
80	9·04	7·88	6·49	5·44	4·73	4·23	2·87	2·40	1·63	1·43	1·11
100	8·25	7·15	5·86	4·95	4·20	3·80	2·61	2·19	1·49	1·30	1·00
120	7·60	6·54	5·30	4·50	3·84	3·40	2·37	1·98	1·37	1·20	0·92
140	7·12	6·11	4·92	4·14	3·54	3·13	2·19	1·83	1·28	1·13	0·86
160	6·75	5·89	4·62	3·94	3·32	2·92	2·06	1·72	1·21	1·07	0·81
200	6·28	5·33	4·21	3·60	3·01	2·63	1·88	1·57	1·12	1·00	0·75
250	5·90	4·95	3·87	3·32	2·75	2·38	1·73	1·45	1·05	0·94	0·70
300	5·62	4·72	3·65	3·15	2·59	2·23	1·64	1·36	1·00	0·90	0·67
400	5·20	4·41	3·38	2·93	2·38	2·04	1·52	1·16	0·94	0·85	0·63

Sample Exceptional Rates, in pence per ton-mile, for the week ending March 24, 1928.

Extracted from the monthly "Railway Statistics."

COMMODITY AND CLASS

Distance (Miles).	At Collected and Delivered Rates.				At Station to Station (S.S.) Rates.			Owners' Wagons.	
	Meat. 19.	Hardware. 17.	Yarn. 15.	Paper. 11.	Iron and Steel. 9.	Manure. 7.	Bricks and Tiles. 5.	Road-stone. 3.	Iron-ore. 1.
1–10	—	25·31	16·47	11·86	4·83	6·21	4·12	3·86	2·46
11–20	15·96	16·40	16·47	9·50	4·12	4·05	2·71	2·72	1·32
21–30	14·25	11·91	7·11	6·43	3·37	3·22	2·31	2·25	1·22
31–40	9·86	9·67	6·16	6·17	3·92	2·79	1·99	2·00	0·85
41–50	9·77	8·04	5·99	4·57	2·69	2·54	1·73	1·72	0·80
51–60	7·15	7·20	5·92	4·65	2·91	2·34	1·61	1·63	0·73
61–70	7·48	6·50	5·78	3·87	2·27	2·19	1·47	1·49	0·84
81–90	7·34	5·35	4·58	3·48	2·24	1·99	1·16	1·37	0·62
101–110	5·18	4·92	4·31	2·66	2·35	1·88	1·15	1·18	0·61
121–130	4·76	4·36	3·31	2·58	2·03	1·68	1·25	1·09	0·55
141–150	4·10	4·36	3·36	2·43	1·74	1·69	1·10	1·03	—
151–200	3·11	4·21	3·00	2·31	1·62	1·60	1·11	1·02	0·56
201–300	3·64	3·26	2·24	2·08	1·53	1·41	0·95	0·96	—
301–400	3·44	3·08	1·84	1·82	1·02	1·28	0·76	—	—

highest rate per ton per mile, and those in intermediate classes at progressively lower rates down to the goods in Class 1, which have the lowest rate of all. As required by the Act, Standard Rates are fixed at such a level as will enable railway companies, given

good and efficient management, to earn a Standard Net Revenue, broadly, the net revenue earned in 1913 plus 5 per cent. on capital invested since that date.

Standard Rates are the rates which the railways are bound under the Act to charge, neither more nor less. But in certain circumstances, the Railway Rates Tribunal, a Court set up to administer the Act, is empowered to grant dispensation, and to authorise the charging of "exceptional" rates, less than the Standard Class Rate. About half the traffic is carried at exceptional rates. Tables are appended showing the Standard Rate for each class, per ton and per ton-mile at selected distances, and certain sample exceptional rates.

§ 3. The costs, to the trader, of transport by railway are available from public sources. Costs of carriage by road are not. It was therefore necessary to undertake a special inquiry. Twenty-nine firms were approached. Sympathetic replies were received in all cases but two. Of the remaining twenty-seven firms, ten stated that their goods were chiefly rail-borne, ten made use of both rail and road, and four relied chiefly on road delivery. Two replies were indefinite. In the remaining case certain exceptional circumstances made the evidence obtained unsuitable for inclusion here.

Thirteen firms, and one general haulage contractor, gave specimen rates per ton for the carriage of goods by road and, in most cases, the competitive railway rate. Railway rates comparable with the charges quoted by the haulage contractor were obtained on application to the railway companies. In all, 146 examples of road charges and the alternative railway rate were obtained from these eleven sources, covering 35 commodities and 63 traffic routes.

This material is best exhibited graphically. The accompanying diagrams present:

Figure I. Road charges and the directly competitive railway rate, in shillings per ton, plotted against the distances the goods are carried. Superimposed are the Standard Rates, C.D., for Classes 19, 15, 11, 7, and 5, of the G.R.C.

Figure II. In the case of two routes, London and Birmingham, Liverpool and Birmingham, the (relative) wealth of data obtained permits a striking method of presentation. The co-ordinates are shillings per ton, and G.R.C. "Class." The Standard Class Rates for each class of the G.R.C. are given, the examples of actual (*i.e.* exceptional) railway rates obtained by the inquiry, and the alternative road charges.

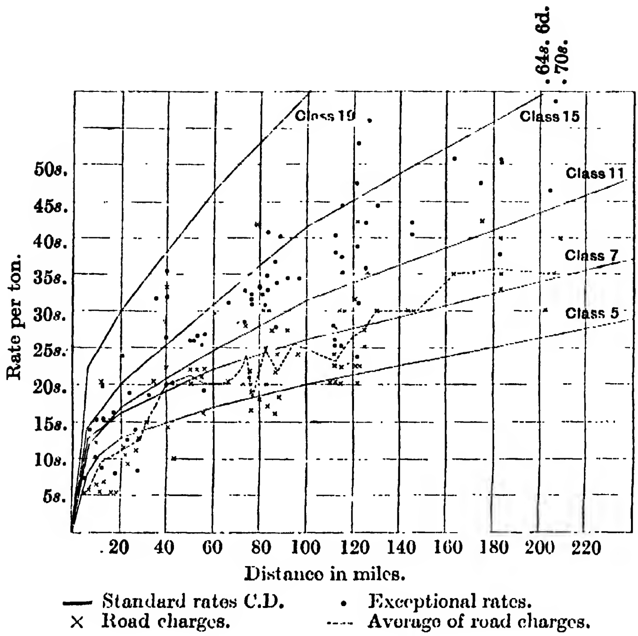


FIG. I.

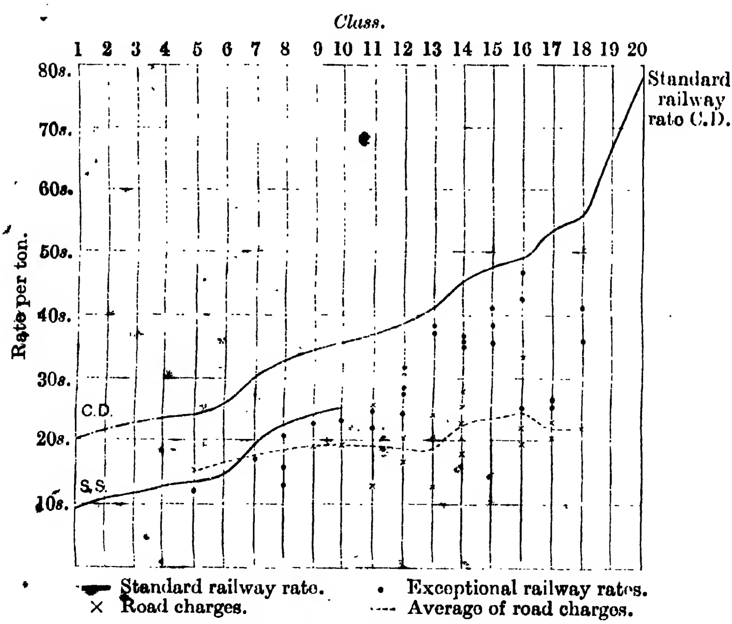


FIG. IIa.—London and Birmingham.

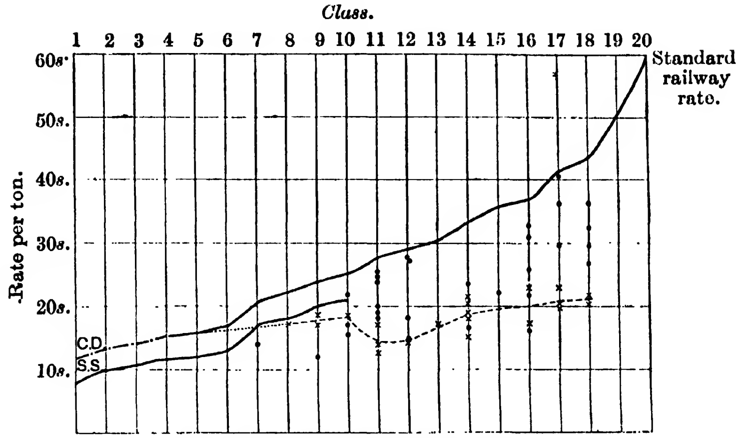


FIG. IIb.—Birmingham and Liverpool.
[Railway rates include cartage in Birmingham only.]

These diagrams show two important things. Road hauliers are carrying all classes of goods at very much the same rate per ton. Road charges do not increase from Class 1 to Class 20 as the Standard Railway Rates do, and the divergence between highest and lowest road rate is much less, even than in the case of the exceptional rates. They show also that road concerns are carrying at rates which, on the whole, lie below the level of the Standard Rate for Class 7. Between London and Birmingham at least, road hauliers appear from Figure IIa to be carrying at rates at the level of Standard Rate C.D. for Class 1.

Compared with railways, the discrimination practised by the road haulier is small. Like other competitive businesses, and unlike the railway companies, road haulage concerns are selling their service, the transport of goods by road, at one single price. As this price is, in fact, about equal to the Standard Rate for Class 7, the margin of competition between road and rail has been established at the level of that class in the G.R.C. For all goods in classes above Class 7, road charges are less than railway rate, and more for goods in Classes 1 to 6.

The position of this margin depends upon two groups of circumstances, the one economic, the other legal. Disregarding for the moment statutory licence duties and petrol tax, the fact that road hauliers carry as cheaply as they do is a function of their costs and their operating efficiency, acting under conditions of a competition almost classical in its simplicity. But that this level of road charges should correspond to the Standard Rate for Class 7, and that the goods in Classes 7 to 21 should travel more

cheaply by road than by rail, is clearly dependent on the Act of 1921. That Act lays down that there shall be a "Classification" of freight and it determines what rate each class of goods shall pay. The system of discrimination between goods set up by the General Railway Classification and the Schedule of Standard Charges is not based upon differences in the costs of handling the goods. It represents differences in the levels of rates they can profitably be charged. High-classed goods are carried more cheaply by road than by rail, not because the road haulier can handle them more economically than the railway, but because such goods can be carried by road at a cost which is less than the charge the railways would find it profitable to make, if they still retained their monopoly of the means of inland transport. If this were the case, the Act of 1921 and the Railway Rates Tribunal would ensure that the railway companies earned each their Standard Revenue, and no more. As it is, they make the road haulier a present of all, and any traffic, he may want in Classes 7 to 21, of the G.R.C., and deprive him of the opportunity of carrying goods in Classes 1 to 6.

The statistical returns furnished by the railway companies to the Ministry of Transport divide railway freight into three groups: "Coal, Coke, and Patent Fuel," "Other Minerals and Heavy Merchandise, Classes 1 to 6," and "General Merchandise, Classes 7 to 21." This last category covers almost precisely the railway freight traffics open to the competition of road transport. "General Merchandise" is an important part of railway traffic. It yields about half the total receipts from goods traffic; and it includes practically all goods except the produce of mines and quarries, iron ore, pig iron, raw steel, iron and steel scrap, bricks and tar.

The essential "unfairness" of road competition lies in the fact that the railways are constrained by law to charge more than the road operator for traffic in the General Merchandise classes, and less for all other classes of goods, quite regardless of whether or not it costs the railways more than the road haulier to carry the former classes of goods and less to carry the latter. Compared with this, the fact that the road operator does or does not receive a concealed subsidy from public revenues is a comparatively minor matter. Readjustment of the costs of road carrying by taxation high enough to ensure that the road transport industry was entirely self-supporting would raise the margin of competition to the level of some higher class in the G.R.C. and would thereby remove a larger volume of railway traffic from the impact of road competition. But the competition which remained, though less

serious, would still be as fundamentally unfair. For it would still be the case that for goods in all the classes above the marginal class, the rates the railways must charge would be higher than the charges quoted by competitive road transport undertakings.

This system of charging was not originally forced upon the railways from outside. The Act of 1921 and the Railway Rates and Charges (Order Confirmation) Acts of 1892–94 did no more than give statutory recognition to the rate structure devised by the railways themselves. Legal regulation of railway charging powers has been concerned chiefly in prohibiting too thorough a discrimination, not in prescribing differential rather than uniform rates. The railways practised a discrimination between different classes of goods because it was profitable to do so, and it is only since their monopoly has been invaded by road motor enterprise that their rate-structure has become a source of embarrassment.

§ 4. The "law of undue preference" requires that the railways shall charge all traders the same rate for the same or similar *and competitive* merchandise. In the days before motor transport this was a reasonable and valuable provision of the law. To-day it has this unfortunate effect, unfortunate at least from the point of view of the railways. If a railway company, in order to meet road competition, offers a trader a lower rate, it may find itself liable to offer the same concession to all that trader's competitors, quite irrespective of whether the traffic consigned by the other traders is subject to road competition or not. The railway company is on the horns of a painful dilemma. Either it must let the first trader's traffic go by road and make no effort to save it, or the traffic of all the other traders must be carried at equally favourable rates. If the company accepts the first alternative, it loses the profit of carrying the one trader's traffic; accepting the second, it loses the profit of the higher rates a railway can charge for traffic for which a competitive road service is not available.

A large volume of traffic is affected by this provision of the law. For example, all goods of the same kind which are produced in different localities, and are consumed in the same place, or exported through the same port, are regarded as the same or similar and competitive merchandise. If one woollen manufacturer in Yorkshire can get a low rate to Liverpool for export by threatening to use a competitive road service, then all other manufacturers of woollen goods exporting through Liverpool may, and do, demand equally favourable terms, even though there is no road service available for them.

The dilemma upon which the railways are impaled is very real and very cruel. The railway companies still carry a larger volume of traffic than do the road hauliers, even of the most competitive traffic. They dare not, therefore, reduce their rates to get back the lesser tonnage which is passing by road, lest they lose the advantage they at present enjoy of carrying the greater at higher rates by rail. And if the companies do not attempt to compete at all with the road haulier, preferring the loss of the lesser volume of traffic as the smaller evil, the road transport industry is all the while establishing a goodwill, and is being given every stimulus to expand its activities.

The Act of 1921 and the law of "undue preference" between them, the one prescribing rates for General Merchandise higher than the level of the road operators' costs, and the other prohibiting any discrimination in rates in favour of traffic threatened by road competition, would be sufficient, if interpreted rigidly, to preclude absolutely the railway companies from making any attempt whatsoever to meet road competition. As it is, the railways are allowed a little latitude, but it is a latitude by no means commensurate with the dimensions of the problem they have to face.

§ 5. There remains to be examined the question of the unequal incidence of the obligation of common carrier. The interests of the railways are admittedly prejudiced by this inequity, but responsibility belongs more to certain characteristics of the statutory control of railway rates and charges than to the status of common carrier.

The "common carrier" is an institution of the common law. There were common carriers before there were railways, and there are many common carriers to-day who are not railway companies. In law, the liability of a common carrier is not unlimited. He is not obliged to carry anything and everything offered to him, to any point the consignor might desire, and upon any terms. A common carrier can only be required to accept traffic in respect of which a reasonable rate or other consideration is tendered, to carry such goods as his vehicle might reasonably be expected to hold, and to such places as lie upon the route he normally traverses. The obligations of a common carrier at common law rest upon any carrier who professes to carry for all and sundry, a road haulier equally with a railway company.

The provisions which make these obligations specially onerous as they rest upon the railways are two. Firstly, as carriers, all the railway companies are treated as one organisation. Each

company is regarded as being accustomed to carry to every point on any railway system. Secondly, the rates which the railway companies may demand for their services, the Standard and exceptional rates, discriminate only between different goods. They do not discriminate between different places. A given class of goods must be carried between all places equally distant at very much the same rate per ton.

The railways must accept any traffic offered to them, and carry it to any station or siding in Great Britain, if the consignor tenders the appropriate standard or exceptional rate. But the road haulier, even if he is a common carrier, need only accept traffic going his way, and such traffic as he can carry conveniently, and he may demand a rate reasonable for that particular service.

The injury inflicted by this inequity can be made clear by taking an extreme case. A large and regular traffic passing between two big centres will clearly cost less per ton to carry than an irregular and light traffic passing between two country stations situated the same distance apart. The big centres will be adequately equipped with facilities for dealing with traffic, the smaller places will not; a regular traffic can be handled with a minimum of idle equipment and empty running, a light irregular traffic to the smaller places may mean that rolling stock must stand idle, or as likely as not return empty, an expensive business. Yet traffic on both routes, the one cheap to handle, the other costly, must be carried at the same rates per ton.

Inquiry shows how road hauliers behave in this matter. They run regularly only between the big towns and busy areas, they carry only loads large enough to fill their lorries, they travel only when their lorry is full; and they accept loads only to places whence return loading is regularly available.

Evidence was provided by the replies of eleven firms. One stated that regular road services were available only between large towns. Another said that its consignments were generally so small that it was more or less impracticable to deliver by road. This firm used road transport, however, when it had large quantities of goods to deliver in the larger centres. A third firm sent its heavier consignments by road, but lighter lots were rail-borne. A fourth had a heavy and regular traffic along one route which was road-borne, while the remainder of its transport, small parcels to other destinations, went by rail. The fifth firm used road only when there were a number of consignments going to the same town. Two others did most (in one case all) of their carrying by rail because of the wide diversity of the destinations to which their

goods were consigned. The firm that consigned all its goods by rail was situated in a comparatively small town. One firm doing practically all its transport by road in its own vehicles, sent by rail only isolated parcels which it could not handle profitably by road.

Another firm found that road transport was very advantageous to big centres, but that there were still a very large number of towns where rail facilities were essential.

The whole matter was put dramatically by the observations of one business man in an interview. He said that in general, the large regular consignments and the deadweight traffic went by road, the small irregular parcels and the goods bulky in proportion to their weight by rail. Most of his traffic was, in fact, rail-borne. He could get cheaper rates by road (his goods were placed in Class 17), but the road haulier would only accept his consignments when he had collected a lorry-load for any one destination. He could not afford to do this on account of the delay it would have caused his clients. He therefore had to consign his goods by rail, for he could refuse to let the railway hold up his traffic in this way in order to "bulk" it. He remarked, "I insist upon delivery next morning, even if it means that the railway must run a special truck to Oban to carry half a hundredweight." His works are situated in the Midlands.

It seems clear then, that, of the classes of traffic common to road and rail, *i.e.* the goods in Classes 7 to 21, General Merchandise, road transport enterprise is getting the more profitable part, and the railways are being left with the less. The road haulier is carrying the regular traffic in large heavy consignments passing along the main traffic routes; and he is leaving to the railways the comparatively expensive business of carrying the irregular traffics, the small consignments, and the traffic to the relatively out-of-the-way places.

The road haulier enjoys these advantages for the same reason that he enjoys the privilege of carrying General Merchandise at lower rates than the railways, because he is free from the Schedule of Standard Charges, and because the whole road haulage industry is not regarded as one organisation, carrying over the whole network of roads in Great Britain. To make road hauliers common carriers would not alter the present position. Road hauliers are only accustomed to carry along the principal traffic routes to-day; as common carriers they could not be required to do otherwise.

Little good would come of extending the liabilities of the common carrier by statute, in order to lay upon each road haulier

the obligation to carry anywhere. He could still plead, with justice, that as his costs were higher off his normal route and on the less important traffic routes, he was entitled to charge a higher rate for carrying on the routes not covered by road transport at present. And at that rate it is not unlikely that it would remain cheaper to send goods over such routes by rail.

The original inequity of the position of the railways relative to the road operator and the opportunity the haulier enjoys at present of "creaming" the traffic cannot be removed by making road operators common carriers.

They would have to be subjected as well to the statutory liabilities which are imposed upon the railway companies. The road transport industry would have to be regarded as one concern, liable to carry anywhere a road might go, and at the same rate per ton for equal distances, no matter between what places.

Measures of this sort would require for their fulfilment a degree of organisation among road operators comparable to that of the four railway companies, a clearing system as comprehensive, and equal facilities for the collection of traffic. At present not one of these necessary conditions could conceivably be furnished by the industry itself. And without them the measures proposed would defeat their own ends.

§ 6. With the margin of competition lying as low as Class 7, and with the railways unable to defend the wide variety of goods thus exposed, road competition has been given the chance of inflicting serious injury on the railways. The extent of this injury may be measured. The tonnage of goods produced and imported classed as "General Merchandise, Classes 7 to 21," can be estimated in each of the three Census years 1907, 1924 and 1930. The sources of information are the Census of Production, the Trade Returns, and the returns of agricultural produce. The estimated output of goods in these classes of the G.R.C. rose from 98 million tons in 1907 to 116 million tons in 1930, an increase of 19 per cent.

Between the same two years, railway traffics in General Merchandise fell by 17 per cent., from 64 million tons to 53 million tons.

There is evidence, which cannot be given here for reasons of space, for supposing that from 1907 to 1913 the tonnage of General Merchandise depended very closely indeed upon the total tonnage of output; and that since 1920, though steadily losing ground relative to total production, tonnage consigned by railway has fluctuated in very much the same way as tonnage produced.

It is reasonable to suppose, therefore, that, since the War, and in the absence of road motor enterprise, the tonnage carried by railways would have risen as the tonnage produced has risen. Had railway traffic been the same proportion of output in 1930 as in 1907, there would have been an additional 23,000,000 tons of General Merchandise, representing a net gain to railway gross receipts, at 17*s.* 7*d.* a ton, of £20,000,000. Railway net revenue in 1930 fell short of Standard Net Revenue by £13,000,000.

As the traffic lost by the railway to the road is probably more, rather than less, profitable than the remainder of the traffic, it is doubtful whether the cost of carrying an additional 23,000,000 tons of General Merchandise would have absorbed a very large proportion of the £20,000,000 of gross receipts that traffic would have realised. In 1930, but for road competition, railway net revenue might well have been greater than the Standard Net Revenue contemplated by the Act of 1921.

	(Tons 000.)		
	1907.	1924.	1930.
Domestic industrial output [1]	68,797	75,554	81,243
Retained imports	18,993	24,073	26,380
Agriculture	9,893	9,603	8,845
Total	97,683	109,230	116,468
1907 = 100	100	112	119
Railway traffic in General Merchandise	64,100	60,943	53,266
1907 = 100	100	95	83
General Merchandise available in absence of motor transport		71,800	76,400
Excess over actual traffic		10,908	23,200
Average receipt per ton of General Merchandise		16*s.* 5*d.*	17*s.* 7*d.*
Estimated loss of gross receipts, £000		8,950	20,400
Defect of actual net revenue from Standard Net Revenue, £000		13,500	12,800

[1] I am indebted to Mr. C. G. Clark, Lecturer in Statistics in the University of Cambridge, for his invaluable assistance in compiling this figure.

It is useful to attempt to measure the total tonnage handled by road in competition with the railways. The Society of Motor Manufacturers and Traders put the ton-mileage worked by road in 1930 at 4,500,000,000. This amount includes local traffic as well as long-distance traffic. I am told that vehicles of under two tons unladen weight cannot be used profitably in competition with the railways. In Appendix C of their Report, the Salter Conference estimate the ton-mileage worked by each

class of goods motor vehicle. For vehicles of under two tons, they estimated a total of 1,620 million ton-miles annually, leaving 2,880 million for the heavier vehicles. All these vehicles are not used exclusively in long-distance haulage, but probably most of them are. 2,000,000,000 of that 2,880 million ton-miles of traffic may be assumed to have been carried in competition with the railways. I am told further that the average length of haul by road is probably about fifty miles. The *tonnage* of goods consigned by road over long distances may therefore be put at 40,000,000, or almost twice the tonnage the railways are estimated to have lost. This estimate of 40,000,000 tons is little more than a guess, as neither the ton-mileage carried by road nor the average length of road haul is known at all accurately. But it indicates, I think, that road transport enterprise has not obtained all its traffic at the expense of the railways.

The average length of haul of General Merchandise by rail is 95 miles, and it has been rising over the last few years. It is unreasonable to suppose that goods travel by road as far as this, but if they do, the tonnage consigned by road will fall to 21,000,000 tons, or just about equal to the railways' losses in 1930.

A question which greatly exercises the public and the official mind just now is that of ensuring a satisfactory "division of function" between road and rail. At present, the transport industry is developing in a way that will make a most unsatisfactory distribution of traffic. The road haulier should carry small consignments which require much handling by rail, and carry between places which offer too light a traffic to warrant the maintenance of a railway. It has been shown above that, in fact, apart from coal, and the minerals and heavy merchandise class of traffic, the road haulier is carrying the larger consignments along the routes of heaviest traffic, and the railways are being left with the lighter traffic the road motor vehicle could deal with more economically.

§ 7. The Government's measures for dealing with this situation are contained in their Road and Rail Traffic Bill. There is a licensing scheme in Part I and certain amendments of railway charging powers are proposed in Part II. Increased taxation on the heavier lorries was levied in the Budget. Examination shows that Part II of the Bill alone is likely to affect significantly the relations of road operators and the railways; and that the restrictions of the licensing scheme may well be pernicious.

The higher rates of motor vehicle duty imposed in the Budget will not raise the margin of competition appreciably in favour of

the railways. Two firms gave information from which the probable effect of these duties upon the costs of carriage by road can be estimated. The figures are given below. They refer to twenty-one vehicles, owned by two firms, each of which did all its carrying by road in its own vehicles. The goods in question were, in the one case, a commodity in Class 5, in the other, Class 18.

Unladen Weight of Vehicle.	Number of Vehicles.	Ton-mileage worked annually.	Salter Conference's Estimate of Annual Ton-mileage.	Cost per Ton-mile in Pence.	Increase in Licence-duty proposed by Budget.	Increase in Costs per Ton-mile.	
						Pence.	Per cent.
2–2½	4	19,975	13,175	6·0	£2	0·02	0·4
3–4	4	42,270	30,500	4·4	£12	0·07	1·5
4–5	3	62,646	49,375	3·5	£27	0·10	3·0
5–6	3	117,080	69,450	2·5	£42	0·09	3·4
6–7	2	92,413	78,600	3·2	£62	0·16	5·0
7–8	4	202,500	97,200	1·68	£82	0·10	5·7
8–9	1	100,000	123,450	2·4	£102	0·24	10·0

The increase to be expected in the level of the road operator's costs is comparatively slight. Probably only in the case of the very heaviest vehicles, say those above 8 tons unladen weight, will the costs of operation be raised appreciably. There are less than five hundred vehicles of that size or over, out of a total of 350,000 goods motor vehicles, and they are estimated to carry annually 55,000,000 ton-miles of traffic, representing less than 1,100,000 tons out of the total 40,000,000 tons carried by road, and the 23,000,000 tons lost by the railways. On the whole, it is doubtful whether the new licence duties will raise the general level of road operator's costs by more than 5 per cent. To make any great impression on the volume of traffic the railways have already lost to the road, an increase in motor taxation is required, four or five times as great as that imposed by the Budget.

Part I of the Bill provides three types of licences, " A " licences for haulage contractors, " B " licences for lorry owners who only occasionally carry for hire, and " C " licences for firms who carry their goods in their own lorries. The licensing authority, the chairman of the Area Traffic Commissioners set up by the Road Traffic Act of 1930, must grant licences for all vehicles, or for an equivalent tonnage of vehicles, which were in use during the year beginning April 1, 1932, and he must grant all applications for " C " licences. The licensing authority can only refuse licences

to haulage contractors for vehicles additional to their existing fleet, and to persons setting up as haulage contractors after March 31, 1933. Licences, however, may not be refused to hauliers who have contracted to carry the goods of a trader for a continuous period of not less than one year for the vehicles they propose to use exclusively for that purpose. Except in this case, the licensing authority has full power in his discretion to grant or refuse " A " and " B " licences (Sections 6 and 7).

The railways have little to hope from this licensing scheme. Railway traffic will not be increased until a revival of trade occurs, robust enough to take up all existing fleets both of hauliers and others, and any additional vehicles which traders doing their own carrying might acquire. Meanwhile, diversion of railway traffic to the road by increase in the numbers of " C " licences can go on unchecked. The Royal Commission on Transport of 1929 accepted an estimate " that 80 per cent. of road-borne goods is carried in traders' own vehicles (and in vehicles working solely for them)." [1]

The licensing scheme may have other consequences. There is a certain amount of combination in the road haulage business already. There are several associations of hauliers and some fairly large contractors. The constant complaint of the road hauliers in the technical press, and quoted in the Salter Report (§ 100), is of lack of organisation, unbridled competition and rate-cutting. Competition is kept alive and vigorous by just that facility of entry into the trade which the Salter Conference deplored, and which the Bill proposes to restrict. Abolish the " unlimited right " that any individual has " to enter the haulage industry without any regard to pressure on the road or any excess of existing transport facilities " and the incipient monopoly represented by those associations will grow.

§ 8. Such restrictive devices designed to protect railway traffic from the competition of road motor enterprise are unsatisfactory. For the railways to get any appreciable advantage, the margin of competition must be raised to some much higher class in the G.R.C. than Class 7. To do this road motor transport would have to be very severely hampered. Restriction of this order merely to protect a vested interest is hard to justify. How is it to be decided what volume of traffic the railways are to be allowed to take? By the Act of 1921 the Companies are entitled to their Standard Net Revenue. Are they to be assured traffic enough to yield that revenue, a monopoly revenue, or is a compromise to be

[1] Final Report, 1931, p. 83.

struck between the position contemplated by that Act and the position of to-day or say of 1929?

Remedies which rely chiefly upon the restriction of the road operator leave intact the fundamental source of the trouble, the coexistence of a competitive, single-price system of road charges, and a legally prescribed system of differential rail rates. Instead of removing the disabilities of the railway companies, the position is to be made more equal by imposing compensating disadvantages on road operators. Measures of this sort are only necessary to preserve the solvency of the railways if the existing forms of statutory control are to be maintained. Free of these disabilities, the companies would find no difficulty in protecting their interests themselves. The present body of railway law is not, in itself, a source of economic well-being. It was developed to deal with a particular situation, a practical monopoly of the means of inland transport in the hands of privately-owned railway companies. That situation has passed. The development of the road motor vehicle has reintroduced competition into the transport industry and the strict regulation of railway charging powers represented by the General Railway Classification, the Schedule of Standard Charges and the law of undue preference is no longer necessary or desirable.

Part II of the Bill is important because it may be used to bring about some such relaxation in the control of railway charging powers. Section 29, the important clause, has been drafted to reverse the judgment of the Railway Rates Tribunal in the Robinson case.[1, 2] But there is nothing in the Bill, nor in any earlier Act relating to railways, to prevent this clause being used to make drastic though appropriate changes in railway charging practice.

Section 29 permits railway companies to charge any rate agreed upon between themselves and the trader concerned "notwithstanding anything in the Railways Act of 1921" (sub-section 1). Such rates are to be exempt from the law of undue preference (sub-section 7). They have to be submitted to the

[1] The Minister of Transport's speech, moving the Second Reading of the Bill on May 3rd. Hansard, Volume 277, No. 78, pp. 872–73.

[2] The Great Western Railway applied for permission to charge an exceptional rate of 7*s*. 2*d*. a ton for oil-cake and cattle-food consigned by Messrs. J. Robinson to each of 320 stations within a specified area round Bristol. The Railway Rates Tribunal refused to sanction this arrangement on the ground that "average" rates of this sort obliterated the principle laid down in the Act of 1921, that separate charges must be made for each consignment calculated at a rate of so much per ton per mile, plus the appropriate terminal charges.

Railway Rates Tribunal for approval, and that body is required to consider, among other things, "whether the making of the agreed charge is necessary to enable the company to secure or retain the traffic to which the agreement relates" (sub-section 6). Provision is made for traders whose business is injured by these agreed rates to object at the time of submission or at any time after the expiration of a year (sub-sections 4 and 5).

The effect of this clause depends entirely upon what the Railway Rates Tribunal does with an objection under these sub-sections. At present any aggrieved trader may complain of a preference (before the Railway and Canal Commission), but that preference will not be considered "undue" unless it injures his interests.[1] If the Railway Rates Tribunal, when asked to approve agreed rates, shows itself as tender of the interests of injured traders as the Railway and Canal Commission is when hearing cases of undue preference, the disadvantage to which the law of undue preference subjects the railways will remain. If Section 29 contemplates removing no more than the disability involved in the Robinson case, then Part II of the Bill will do nothing but save the railways and their larger customers some clerical labour.

But Section 29 admits of another construction. It relieves the railways of the disabilities imposed on them by the Act of 1921 (sub-section 1) and the law of undue preference (sub-section 7) in the particular case where that relief is necessary to enable them to retain or secure the traffic (sub-section 6). These disabilities, it has been shown above, are sufficient to deprive the railways completely of power to meet road competition. Provided the Railway Rates Tribunal interpret it generously to the railways, this clause will permit them to charge rates as low as, or lower than road charges for competitive traffic, without prejudice to their right to carry non-competitive traffic at the higher Standard or exceptional rates.

So interpreted, the significance of Part II of the Bill would be great. It would enable railway companies at last to compete on equal terms with road operators, because they would be allowed to charge the same rates for the same traffic.

§ 9. The present difficult situation created by the relations between the railway companies and road motor enterprise can only be handled satisfactorily by measures which will place road and railway rate-making on the same basis, and ensure equality of status between them in respect of their liabilities as carriers. Two possibilities present themselves. Road operators might be

[1] Lever Bros. v. Midland Rly. (1909), 13 Rly. & Can. Tr. 301.

compelled to adopt the General Railway Classification, to charge railway rate for their services, and be obliged, as the railways are, to carry goods anywhere, on tender of the appropriate Standard or exceptional rate. Or the Classification and the Schedule of Standard Charges might be abolished or drastically revised to suit a new situation, and the railways given the less responsible status of the road haulier, by relieving them of the obligation to carry the same class of goods at rates per ton which remain the same, however much costs of carriage per ton may vary. The first of these alternatives requires that the road haulier be received into the railways' monopoly. It has already been shown that the road-carrying industry, as a separate undertaking, could not be subjected to the obligations imposed on the railways. The second requires that railway rate-making be assimilated completely to the competitive conditions prevailing among road hauliers.

A new rate structure would naturally follow the adoption of this second alternative. It would tend not to be a structure of uniform rates, a single-price system. Differentiation there would be, but it would be a differentiation based more upon cost than at present, a discrimination not so much between different commodities as between different places, and between different sizes of consignments. Rates per ton would rise against the smaller consignments, and against traffic passing over the less important routes. It is probable that they would fall in favour of the larger consignments, and in favour of traffic between the bigger centres.

Existing trading relations would, of course, be considerably upset. Firms whose goods are largely shipped in small consignments would find their transport costs increased, and so would firms whose premises or customers happened to be situated outside the main channels of domestic trade. There is no particular reason why the shippers of the smaller consignments and those who demand carriage for their goods to out-of-the-way places should have their transport subsidised, as it is at present, at the expense of those who forward larger lots, and who forward between the main industrial centres. But the fact remains that they do and that industry as a whole is used to it. Any attempt to alter this might therefore be difficult, and might put obstacles in the way of the adoption of this alternative.

Space is not available here to discuss in detail the merits and demerits of the proposals sketched out above. The one offers cheaper carriage to firms trading in the goods classed as "General Merchandise," a competitive service in transport, and the full benefit of the road motor as a new inland carrier. But it involves

extremely unorthodox developments in railway practice, and probably considerable disturbance in the existing relations between traders. The other avoids these two difficulties. But it means the elimination of competition from the transport industry, and before it has had time properly to reinvigorate the railway companies; and it penalises those firms which at present enjoy the cheaper carriage offered by the road haulier to preserve not only the interests which monopoly has given the railway companies, but also the particular form which railway charging has taken. Road competition, let it be remembered, is not only taking traffic off the railways, it is jeopardising, as well, the General Railway Classification of Merchandise, and the practice of discriminating between goods. Discrimination in rates by a monopolist, when specifically not based upon cost, as in this case, is not a desirable method of charging, economically at least. It enables the monopolist to make a larger profit than a flat rate would, but it offers no compensating advantages to the public. Care must be taken, when measures are being devised to deal with road competition, that they are not measures designed really to save the practice of classifying goods for purposes of railway rate-making and of discriminating between them when there is no commensurate difference in the costs of handling them.

On the whole, I am inclined to think that the preservation of the existing comparatively "simple" competition which has developed among transport undertakings is better than the re-establishment of complete monopoly; and that a rate-structure based more or less upon cost, as is the case in other industry, is preferable to a structure of differential monopoly rates such as the Schedule of Standard Charges. Prima facie, at least, measures which, by sweeping away the General Railway Classification and the Schedule of Standard Charges, would assimilate railway rate-making to the present practice of road hauliers, offer a more satisfactory solution than those which would impose Part III of the Act of 1921 on to the road transport industry.

If the unorthodoxy of such a step and the disturbance which would follow it are sufficient to render it impracticable and impolitic, compromise is always possible. The road carriers might be amalgamated with the railways, and the whole organisation required to charge a uniform rate for the carriage of "General Merchandise, Classes 7 to 21." Industry would receive the benefit of the cheaper transport offered by the road motor, while at the same time the costs of transport would not be raised against the firms shipping goods over the lighter traffic routes.

§ 10. Considering the nature of the problem, the Government's Bill is inadequate. If Part II be interpreted narrowly, the Bill will achieve nothing. It will rely entirely on restrictions which are not severe enough. Even if Part II be used to enable the railways to compete effectively with the road, the Bill hardly justifies the claim which the Minister of Transport made for it when moving the Second Reading, that it was an essential preliminary to that voluntary co-ordination of road and rail transport which would "give the public the full advantage of complementary service." The Bill may help to restore railway prosperity, but it does nothing to compass a rational and economic division of function. It does not attack the situation created by the unequal incidence of the obligation of the common carrier, examined above in § 5. The road operator is left free to compete only for the most profitable traffic. After the Bill is passed, road transport will cream the traffic as it does at present, and the very unsatisfactory distribution of traffic which has developed will not be improved.

Part I of the Bill may deprive the public of some of the advantage they might enjoy from Part II. The "A" licences, by restricting the competition among haulage contractors, make it possible for them to maintain their rates or, by agreement with the railways, to fix road charges at railway levels. Even without agreement, restriction of the numbers of road hauliers will tend to raise the level of road charges, and to raise correspondingly the level at which agreed charges must be established to enable the railways to secure or retain traffic. In either case, transport charges generally would be raised, and it is a rise which would press particularly upon those businesses which do not operate their own lorries, either because they are too small, or because they do not have a heavy enough traffic to any one destination.

Transport costs are a large item in business. Firms of medium size may pay £5,000 to £10,000 annually for their transport. Large firms pay as much as £50,000 to £100,000. The question, therefore, of whether or not any measure will produce, unnecessarily, even a comparatively small increase in transport charges is very important to the trader, probably more so than is generally realised.

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PRICE FORMATION IN A SOCIALIST COMMUNITY

1. *Introduction*

CRITICISMS of socialism have their fashions just as socialism itself appears from time to time in various guises. During the first half of the nineteenth century the Malthusian bogy was most consistently invoked by opponents of communistic schemes. As the bourgeoisie lost their fear of over-population, new arguments against socialism had to be found, and so, until recently, the question of incentives has occupied the front place in discussions on the possibility of collectivist socialism. With the spectacle of collectivist state actually working (even though imperfectly) before our eyes in Soviet Russia, and attempting prodigious feats of economic reconstruction, the incentive argument appears less convincing. Accordingly, there appears in orthodox circles a new critique of socialism, more subtle and technical than the previous ones, based on the supposed inability of a socialist community to solve purely economic problems. It is admitted that such a community might acquire a mastery over technique not inferior to that achieved under capitalism, that new psychological incentives to do and give of one's best might be developed as powerful as the love of gain or the fear of destitution, that even though every child born were guaranteed a share in the resources at the disposal of the community, philoprogenitiveness would not necessarily bring the law of diminishing returns into rapid and fatal action; what is asserted is that, even with highly developed technique, adequate incentives to activity, and rational control of population, the economic directors of a socialist commonwealth would be unable to balance against each other the worthwhileness of different lines of production or the relative advantages of different ways of producing the same good. L. von Mises, in his *Gemeinwirtschaft*, makes two definite charges against socialist economy:

(1) where the State is the sole owner of instrumenta goods there can be no price formation for such goods, hence no rational reckoning of cost and hence no rational economy;
(2) under planned economy the managers of industry

can have no discretionary power and no pecuniary responsibility for production, therefore rational risk-bearing becomes impossible.

The conclusion to be drawn from these two propositions is that a socialist economy would have no guiding principles and would, as soon as it lost any parasitic support that it may get from comparison with neighbouring capitalist economies, degenerate into an affair of wild guesses and random decisions.[1] It is the object of this article to refute the first of Mises's criticisms of socialism and to show that a rational pricing of instrumental goods is at least theoretically possible in a socialistic economy. Other writers have suggested that collective economy is inconsistent with any kind of freedom of choice for consumers or freedom of employment for workers. This point also will be dealt with.[2]

2. *Postulates*

Let us first make clear the assumptions on which we shall base our argument.

We postulate an economic society in which private property is recognised in goods used for personal consumption but not in goods used for trade or for producing goods to be sold in the way of trade. Natural resources and instrumental goods are owned by the community and all production is undertaken by the community. The economic activities of the community fall into two main divisions. On the one hand there is the production of goods and services to satisfy the demands expressed by individual purchasers in a market. On the other hand there is the provision of goods and services free of charge to all members of society, as the result of a decision, based on other grounds than market demand, made by some authoritative economic organ of the community. We will call the first the sector of individualised consumption and the second the sector of socialised consumption.[3]

[1] For other critiques along these lines see B. Brutzkus, *Die Lehren des Marxismus im Lichte der Russischen Revolution*; G. Halm, *Ist der Sozialismus wirtschaftlich möglich?*

[2] For slightly different solutions of the problem see F. M. Taylor, "Production in a Socialist State," *American Economic Review*, March 1929; G. Morreau, "De Economische Structuur eener Socialistische Volkshuishouding," *De Economist*, June, July–August, September, 1931.

[3] The sector of socialised consumption does not correspond exactly to what are called "social services," since some social services (*e.g.* social insurance) take the form of money payments made to individuals, who then enter the market as individual demanders of goods. (See section 8.)

We will consider here only price formation and cost determination in the sector of individualised consumption. For this purpose, money, in the sense of freely disposable purchasing power, is in use. Consumption goods are sold at a price to consumers by the community, which distributes purchasing power to consumers in ways to be hereafter defined. The human effort required in production is hired by the community under contracts of service, freely entered into by its citizens (proceeds of these contracts form part of the purchasing power at the disposal of citizens). The organisation of production in this sector is in the hands of a hierarchy of autonomous corporations, similar to limited liability companies in a capitalist community. Each production unit is an autonomous accounting body; production units are grouped according to their technical nature or the needs of the market into trusts; the trusts are grouped into larger units comprising an entire industry; the entire congeries is supervised by a Supreme Economic Council (S.E.C.) which has the right of inspection and audit of the entire system.[1] Marketing may be undertaken by the producing organisations or by separately organised selling syndicates. Although the forms of capitalistic organisation are maintained, there is one fundamental difference in that there is fullest publication of output, costs, sales, stocks, and other relevant statistical data. All enterprises work as it were within glass walls.

The problem then is how, under these conditions, prices would be determined (A) for consumption goods, (B) for production goods.

3. *Pricing of Consumption Goods*

We will assume the existence of stocks of goods in the hands of the selling agencies. How they are replenished we shall inquire later. From the point of view of the determination of a demand price the rates of supply might just as well be arbitrarily chosen quantities. The selling agency will sell on the basis of what the market will bear, raising price when stocks fall short and lowering it when they accumulate. In this way

[1] The Supreme Economic Council of the U.S.S.R. does not correspond exactly to this body. The former is really a People's Commissariat of Industry, having control over manufacturing production, while other branches of economic life, such as trade, transport, agricultural production and finance, are under independent commissariats. (Recently, the Supreme Economic Council has been divided into the People's Commissariat of Heavy Industry and the People's Commissariat of Light Industry.) The body that in the Soviet economy most nearly corresponds to our hypothetical S.E.C. is the Council of Labour and Defence (to which the State Planning Department is attached).

the statistical service of the sales agency will be able to draw up a demand schedule for each type of goods sold.

The construction of demand schedules both for consumption and production goods will be one of the most important duties of the statistical services attached to selling agencies, productive organs and the S.E.C. itself. Theoretically, the task is a very difficult one, since the demand for one commodity is not a function of its price alone but of the prices of all other commodities.[1] Practically, the task could be solved to an approximation sufficiently close for the guidance of the managers of industry, by taking groups of more closely related commodities (composite supply or joint demand) in isolation from other groups. Under capitalism, demand schedules are apt to exist in the realm of faith rather than in that of works,[2] but within the glass walls of the socialistic economy they would become much easier to draw up.

Except in the case of a few irreproducible goods (antiques, works of art, out-of-print books, services of celebrated actors and singers), the stocks in the hands of the selling organisations will not be arbitrarily determined. The managers will attempt to keep them at a level that will just suffice for current needs; as stocks are exhausted, the managers will replenish them by orders sent back to the productive organs of society. These will deliver fresh supplies against payment at an appropriate price (determined as in sections 4–7). These prices will enter into the costs of the selling organisations. The latter will be so conducted as to reduce to a minimum the margin between cost and sale-price.[3]

4. *Pricing of Production Goods*

On the basis of the orders sent back by selling agencies the manufacturing organisations will be able to draw up demand schedules for their products. In the case of composite demand they will aggregate a number of different demand schedules. In the case of joint supply they will have a separate demand schedule for each product. If the proportion in which the joint products are obtained is invariable, these can be simply aggregated to obtain a demand schedule for the total output. If the proportions are variable, a mathematical problem is

[1] Cf. Cassel, *Theory of Social Economy* (new edition), pp. 139–47.

[2] See, however, articles by Holbrook Working (*Q. J. E.*, August 1925); E. W. Gilboy (*Q. J. E.*, August 1930); A. C. Pigou (*E. J.*, September 1930), and the literature quoted in them.

[3] For price formation in a socialist economy see Cassel (*op. cit.*), pp. 131–36.

presented which is soluble, given enough observations; this is to determine for each rate of output the proportions of the joint products for which the total receipts would be a maximum.

Each productive organisation will be able to offer a price for the goods that it uses in the process of manufacture. (In general, these goods will be in joint demand; thus their prices will not be independent. Most of them, also, are in composite demand. The problem of valuation is complicated but not impossible.) Thus demand schedules can be established for goods of higher order and, finally, for the ultimate factors of production (parcels of land of known area and quality, definite quantities of mineral and other resources, and certain numbers of workers registered as willing to do certain jobs—we need not at present assume any connection between work and pay).

The quantities of these ultimate factors are known. We will assume provisionally that they are fixed. Then for each factor the S.E.C. will fix a price which, according to the demand schedule, will just ensure its full employment. Let the costs of production be calculated on the basis of these figures. Then the productive organisations will slow down or stop the production of those goods where demand price is below the cost price and will expand the production of those goods whose demand price is above cost. Moreover, the various productive agencies will find it possible, on the basis of possible alternatives in methods of production, to substitute one factor for another, thus modifying their demand for such factors. Ultimately, by a process of successive approximation, a true economic price for each factor will be established, which can then be used for costing purposes wherever the factor is used. In this way the costs are imputed from the demand for the marginal product and then deputed back to all other products. Also, factors of production will be allotted to different uses so as to bring in equal returns.

So far we have not considered the supply of factors of production. In the case of natural resources the supply is fixed, or at least independent of market changes. The supply schedules of different kinds of labour depend on the policy of the community with regard to distribution. If it decides not to pay according to results, the supply of each kind of labour is independent of the demand for its products. The price of labour is in this case simply an accounting price that has no necessary relation to the actual income of the labourer. If, however, the community decides to distribute part of its income as wages for

work done, then each worker may be paid as wages the economic value of his services, as determined above, and the number of workers seeking work in each kind of occupation will then be a function of the price offered. In this case, supply schedules can be drawn up for each kind of labour. (See section 8.)

Once the system has got going it will probably be unnecessary to create in this way within the framework of the socialist community a sort of working model of capitalist production. It would be possible to deal with the problems mathematically, on the basis of the full statistical information that would be at the disposal of the S.E.C. To determine uniquely the quantities and prices of a given number of finished consumption goods and of the ultimate factors of production that go to make them, we require four kinds of functions: (1) a demand function for each consumption-good, relating quantity consumed to price; (2) a function connecting unit quantity of each consumption-good with the quantities of factors used in its production (this will in general depend on the rate of output of the product); (3) a function for each product expressing the condition that selling price must equal the sum of the prices of the factors of production; (4) a supply function for each factor of production relating quantity available with price. Now the second and third of these functions are a matter of technical rather than economic calculation and are determinable. The demand functions can be determined, given free purchase at a price. The supply functions are either of the form "available supply = constant" or are discoverable, given free choice of occupation at a wage. Thus the whole thing could be resolved into a set of simultaneous equations, or, since only small deviations from an already established equilibrium need be considered, into a problem in calculus of variations.[1] Given a free market at each end of the chain of production, for finished goods and for productive services, the prices and quantities that would exist if the intermediate goods were sold in a market can, theoretically, be determined.

Ultimately then there will emerge a demand price for each of the ultimate production goods. These are land (with which all natural products, such as timber and minerals, may be lumped[2]) and all the different kinds of concrete labour.[3] Two

[1] Cf. Marshall, *Principles of Economics*, Mathematical Appendix, Note XXI. G. Cassel, *op. cit.*, pp. 139–47.

[2] For land, see Cassel, p. 289, also Henderson, *Supply and Demand*, p. 100: for natural materials, see Cassel.

[3] For the pricing of labour, see Cassel, pp. 362–65.

more things are necessary to a complete costing system. These are an allowance for time spent in production (interest or discount) and an allowance for risk (in the form of a surcharge above the normal rate of interest). Unless interest is taken into account in the computing of cost it will appear equally preferable to produce either of two commodities in each of which the same quantity of labour and land is incorporated, although in the case of one of them the expenditure may be spread over a hundred times the period of time that it is in the other. The community will be led to spend its resources on schemes that will only produce consumable goods after centuries, while in the meantime it will suffer penury. Unless risk is taken into account it will appear worth while to spend resources on any branch of production where there is even an infinitesimal chance that the product will be wanted.

5. *Interest*

To illustrate the problem of interest in a socialist community let us take the case of a railway that has to cross a piece of high ground. Either it may be built in the open with two steep slopes, or it may be constructed with deep cuttings and a tunnel. The first way involves greater cost in operation than the second for the whole time that the line is open : the second way involves a greater expenditure of labour and materials at the time of construction. How can the authority planning the railway balance the extra annual cost of operation against the additional once-and-for-all cost of construction? If the additional construction-cost is only five times the extra annual operation-cost, it is almost certainly worth while to build the tunnel. If it is a hundred times more, the tunnel is almost certainly not worth while. Projected works can be classified according to the number of "years' purchase" that they require. It is obvious that the community should undertake first those works in which a present outlay saves a large annual cost before proceeding with those that effect a less saving. Equilibrium is obtained by pushing the investment of resources up to the same number of years' purchase in all lines of production. The community must decide upon a certain number of years' purchase (in other words a rate of interest) and apply it as a touchstone to distinguish between feasible and unfeasible undertakings.

To compute a rate of interest, each undertaking will draw up several alternative plans of activity on the assumption that interest is six, five, four, three, etc. per cent., the schemes at the

lower rates being naturally more comprehensive than those at the higher rates. On the basis of these schemes it will be able to draw up a schedule of its demand for capital at different rates. The S.E.C. can then construct an aggregate demand schedule for capital to be employed in the whole of industry.

Two procedures can now be followed, according as to whether interest-rate or quantity of accumulation is to be taken as the independent variable. In the first case the S.E.C. will fix a certain rate of interest for the year and then earmark the corresponding quantity of capital out of the total social income. In the second case the S.E.C. will fix the amount of capital that is to be raised, and then the ruling rate of interest for the current accounting period will be given. In either case the rate of interest, however arrived at, will be used for all accounting purposes (depreciation, insurance, etc.) and the capital will be supplied to undertakings in accordance with their original demand schedules.

If interest is to be taken as the independent variable, what principles should be followed in deciding upon a rate of interest? If Cassel's argument in *The Nature and Necessity of Interest* is valid, then the rate of interest depends on the duration of human life. In an ideal individualist community accumulation would proceed and interest fall until the number of years' purchase of a perpetual income had risen to something short of the extreme duration of human life.[1] Here it is true that the socialist community cannot determine the exact figure with the accuracy of an individualist community, balancing the attractiveness of perpetuities against that of life-annuities. Still, no extreme error in valuation will be incurred if the S.E.C. accumulates until the rate of interest falls to, say, 2 per cent. and then keeps the rate of interest steady. If the tempo of technical invention increases or if public taste becomes more changeable, the amount of new capital to be raised in a year will increase; if invention or changes in taste fall off, the amount to be raised will diminish.

If the amount to be saved is to be taken as the independent variable, then the most appropriate formula would be that of F. P. Ramsey.[2] It may be objected that the practical application of this formula involves the determination of utilities. Nevertheless, this problem should not prove to be insoluble in a community of approximately equal incomes, given free choice of

[1] See also *Theory of Social Economy*, pp. 241-45.

[2] "A Mathematical Theory of Saving," Economic Journal, December 1928.

consumption and the sale of consumption goods at a price in the market. If it can be solved, even approximately, a rate of saving can be determined and then from the demand schedules of the different undertakings a corresponding rate of interest can be found. Changes in productivity and fashion will then be reflected in changes in the rate of interest.[1]

6. *Surcharge on Risk*

In a socialist community, it might be held, there should be no question of economic risk: economic planning should eliminate it. This is true of many kinds of risk. It is true of risks due to the simultaneous action of a number of entrepreneurs ignorant of each other's decisions. But in any economy where free choice is permitted to consumers and to providers of services an element of risk is bound to exist.

The calculation of a surcharge on risk is, in general, a more difficult task than the determination of a rate of interest, since it has to be done for each transaction or type of transaction separately. In the individualist community it is largely a matter of guesswork—that is to say, unconscious judgment, based on old-standing habit and a mass of assimilated experience. The socialist community might for a time make use in the same way of the "hunch" or "flair" of the trained manager of industry, but it should in time evolve a statistical treatment of risk based on the frequency distribution of sales and of price changes.

7. *Costing*

Prices of factors of production having been determined, a rate of interest and surcharges for risk having been fixed, the S.E.C. would have all the necessary data for establishing a general system of costing and control throughout the productive machine. It would be possible to balance the relative advantages of competing methods of production and to compare the worthwhileness of spending resources on alternative lines of production. The principle of substitution would have full application.

Moreover, socialist costing would do what individualist costing cannot do—eliminate or reduce the divergence between social net marginal product and trade or individual net marginal product.[2] Ignorance of economic opportunities would be eliminated by the publicity of a planned economic system. Cost of

[1] For the problem of interest in a socialist society see Cassel, pp. 256–59. Also see H. D. Henderson, *Supply and Demand*, pp. 14–16, 130.

[2] See Pigou, *Economics of Welfare*, Part II, Chapters I–X.

movement of resources would be considerably reduced and many movements of resources could be made unnecessary by knowledge and foresight. In the calculation of costs allowance could be made for the items that are not included in capitalist costing and that bring about the divergence between the socially most desirable output and that which is most profitable to the individual firm. Thus the incidental benefits or disbenefits that an industry or undertaking renders to others or to the general amenities of the community could be taken into account in the form of deductions from or additions to the cost of production. The wasting of resources that occurs under free competition, due to ignorance, duplication and overlapping of effort, and lack of standardisation, could be eliminated, without the reduction of output and consequent mal-distribution of resources that is the inevitable concomitant of capitalist monopoly.

Socialist costing could take into account the difference between supply price and marginal supply price.[1] Once the supply schedule for a given commodity had been drawn up it would be possible to calculate its schedule of marginal supply prices. To the sum of costs, as determined in the ordinary way, small additions would be made in the case of goods produced under conditions of Increasing Costs; from the sum of costs deductions would be made in the case of goods produced under Diminishing Costs. The additions would go into, the deductions come out of, a special fund that might be called the Marginal Cost Equalisation Fund. The balance of this fund would be added to (or come out of, if a net deficit) the general income of the community.

There is the problem of gains and losses due to unforeseen fluctuations of demand. It would be best to price goods at a small margin above cost and to apply the surplus to an equalisation fund for each undertaking. All surpluses over a certain percentage of annual turnover should revert to the community as a whole.

Thus there is, in theory, no ground for the assertion that a socialist community, lacking a free market for intermediate goods, would be unable to regulate production in accordance with the principles of scarcity and utility. In fact we may go so far as to say that only in a socialist community, where production can be carried on in the full light of statistical measurement and publicity, is it possible to realise the true principles of economic valuation. Capitalist society, with its deviations from

[1] Pigou, *Economics of Welfare*, Part II, Chapter XI, and Appendix III.

equilibrium due to inequalities in individual income, to competition, to monopoly, and to the mutual ignorance of entrepreneurs concerning other entrepreneurs' activities, is a very imperfect approximation to the economic ideal. The beautiful systems of economic equilibrium described by Böhm-Bawerk, Wieser, Marshall and Cassel are not descriptions of society as it is but prophetic visions of a socialist economy of the future.

8. *Distribution*

It is clear that in a socialist society the return to natural resources, interest on capital and surcharges on risk are mere accounting terms. They would be calculated as described above, but instead of inuring directly to individuals as personal income, they would be paid into a general fund that would be at the disposal of the community as a whole. This fund might be called the Social Fund. (Into it would also go the balance, if any, of the Marginal Cost Equalisation Fund and all surplus of selling price over cost, not otherwise allocated.)

It is clear that the return to labour might be dealt with similarly.[1] In a socialist system there is no essential connection between the value of labour and the payment of a sum of money to a labourer. For purposes of accurate costing it is necessary to know the value imputed to human effort from the ultimate consumption goods in which it is embodied; but this might be used for accounting purposes only, each worker being rated at a certain figure for purposes of time-sheets and transfers from one job to another, while all earnings were pooled and divided up on some arbitrary principle—say equal incomes for everybody, or a system of payments according to need. However, this system, if accompanied by free choice of job, will lead to great scarcity of labour in some occupations and to a redundance in others, as compared with the social need for such labour. This system will also add to the complexity of book-keeping. It will probably, therefore, be simplest to pay each labourer the value of his labour. In this case free choice of occupation would be compatible with an allocation of labour in accordance with the economic needs of the community, labour being attracted by higher earnings to places where it was in demand or being warned off unwanted occupations by a shrinkage in earnings.

If obstacles to the mobility of labour were removed and if

[1] For Cassel's view on wages under socialism, see *op. cit.*, pp. 362–65. See also my article on "The Economic Basis of Socialism" in the *Political Quarterly*, September–December 1930.

education and vocational training were really free and available to all who cared to avail themselves of them, the supply of kinds of labour that are to-day scarce (skilled and professional labour) would probably increase, so reducing the inequality in personal earnings. The existence of a large number of other free social services (medical, cultural and recreational) would further diminish inequalities in real income due to inequalities in money earnings. Finally, a steeply progressive surtax could be levied on all earnings over a certain amount.

But the whole product of industry cannot be divided in personal income. There are two prior charges on the social dividend. One is capital accumulation; the other is the cost of socialised consumption (see section 2). The obvious source for this is the Social Fund. If this fund is not sufficient, then a levy must be made on earnings. If, on the other hand, the Social Fund were more than sufficient to supply all the needs of the community for social services and capital formation, then the balance should be divided among the citizens as individual income.

9. *Foreign Trade*

So far, we have described price formation and economic regulation in an isolated socialist community. Far from such a community's being parasitic on capitalist states outside, in the sense of basing its price system on theirs, we have seen that it is possible, in theory, to determine all necessary prices and costs in an isolated economy. We have now to consider how this community would be economically related, through imports and exports, to non-socialist communities.[1]

The principle of comparative costs applies to a socialist economy as to a capitalist one. If a good can be obtained from abroad in return for the export of goods whose cost is less than the cost of producing the first-mentioned good at home, then a net gain of economic welfare results from importing the good instead of producing it at home. This is subject to qualifications. For example, it is only true of costs reckoned in the long run, and not of short-period prices, which may diverge considerably from cost. It is not worth while importing goods that are temporarily cheap owing to a price-cutting policy, if their introduction necessitates changes in the allocation of capital and

[1] It is assumed that there is only one socialist commonwealth or, at any rate, that all socialist communities are linked up by a common planning and costing organ into a unified economic system.

labour at home that have quickly to be reversed again. Even if the imports are permanently cheap, the adjustments in home production may cost more than the savings effected by importation. Now a socialist community can make allowance in its estimates of *all* the relevant costs (abandonment of specialised plant, retraining of skilled labour, etc.) and can spread the charge over that period of time during which equipment and labour would naturally be renewed.

Another important qualification of the comparative cost principle is that there may exist political reasons for not being dependent on foreign countries for particular products; there may exist social reasons for developing certain branches of domestic production beyond the point indicated by the principle of non-discrimination. In all these cases definite subsidies should be made out of the social income to the industries concerned and the ordinary calculation of costs then applied. In this way it will be possible to see clearly the real social cost of such a policy of exclusion and, moreover, to apply quantitative methods to the case where, while it is undesirable for political or social reasons to admit a large quantity of some imported product, it may be undesirable to exclude it entirely.

But these exceptions apart, the policy of a socialist community with regard to foreign trade should be, not free trade, which is inconsistent with the principles of collectivism, but non-discrimination between foreign and domestic sources of supply. It is non-discrimination rather than freedom that the orthodox agreement in favour of "free trade" proves to be economically advantageous. A socialist community could practise non-discrimination while protecting the home market from dumping and short-period fluctuations; it could encourage infant industries; and, since there would be within it no independent bodies of entrepreneurs with interests opposed to the social interest, there would be no danger of such protection and encouragement being used as a screen for monopolistic depredations. It is true that prejudice and mental inertia on the part of groups of producers might perhaps create a demand for restrictions not socially justified; but here the "glass walls" of the socialist economy would make it difficult to maintain unreasonable discriminations.

The question of foreign exchanges should present no difficulty. If the outside world adhered to the gold standard, the socialist community would have to conduct its foreign-trade transactions in terms of gold. The S.E.C. would have to see

to it that imports were paid for by exports. But there is no necessity for the internal currency to be linked to the external. The conversion of one into the other would only be necessary for the use of travellers and for remittances between private individuals. The central bank would have a monopoly of foreign exchange and could fix what rates it liked. The greatest economic and administrative convenience would, however, result from its fixing the rate of exchange at a figure corresponding nearly to the true purchasing power parity of the internal currency with gold. This figure could be changed from time to time, as the internal value of gold varied.

More difficult problems of foreign trade are involved in the case of the import and export of capital. If the rate of interest on long-period loans outside the socialist community is lower than the rate prevailing within, there is an obvious economic advantage to be obtained by borrowing from abroad until the domestic interest rate sinks to the world level. Similarly, if the outside rate of interest is higher than the socialist community's, the latter can increase income per head by using its resources to finance foreign undertakings instead of domestic ones and consuming additional imported goods with the proceeds. Either procedure is economically possible. The extent to which it would be followed would probably depend on social and political considerations.

10. *Conclusion*

In conclusion, the writer would like to say that he believes he has demonstrated at any rate the theoretical possibility of an economic system based upon the collective ownership of land and capital, directed towards the realisation of equality of income, and in which there would be room for free choice both of occupation by workers and of gratifications by consumers. Under such a system it would be possible to establish an economic equilibrium between cost and utility and to allocate resources to the satisfaction of competing needs at least as well as, if not better than, under capitalism.

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THE DIFFICULTY OF IMPUTATION

THE theory of distribution which forms part of the present generally adopted body of economic thought states that when production is carried on in conditions of free competition between factors of production for the highest wage and between entrepreneurs for labour at the lowest cost, each unit of any factor is remunerated at a wage equal to the value of the marginal net product of that factor in the industry in which it is employed, and that the distribution of the factor between industries is in equilibrium when marginal net products are equal in all industries. The marginal net product is defined as the value added to the total product of a productive group or association of factors by the use of the last unit of that factor: *i.e.* the difference between the value of the product when x units are used and when $x - 1$ are employed.

Marshall in dealing with this part of economic theory is, as always, conscious of the necessity, in his opinion, of closely relating theory to fact; of explaining and describing economic life as he saw it, and therefore he expounds the theory of the distribution of factors of production between different industries by visualising the entrepreneur in control of his business weighing the benefits to be gained by the increased use of any factor against the cost of that factor. In discussing the net product he says,[1] "Every business man indeed, according to his energy and ability, is constantly endeavouring to obtain a notion of the relative efficiency of every agent of production that he employs; as well as of others that might possibly be substituted for some of them. He estimates as best he can how much net product (*i.e.* net addition to the value of his total product) will be caused by a certain extra use of any one agent. . . . He endeavours to employ each agent up to that margin at which its net product would no longer exceed the price he would have to pay for it. . . ." In the specific case of the brewer he says,[2] ". . . the proportion of hops and malt in ale can be varied . . . the extra price which can be got for the ale by increasing the quantity of hops in it is a representative of the causes which govern the

[1] *Principles*, 6th edition, p. 406.

[2] *Ibid.*, p. 407.

demand price for hops . . . the extra value thus given to the ale is the marginal net product of the hops of which we are in search."

In this form the theory has been generally though sometimes tentatively accepted as a fair representation of the working of an economic system of free competition. It has become established because, as Marshall has shown, it is a realistic representation of the brewer's experience, and theoretically it is deducible from the fundamental properties of the theory of demand and supply in conditions of free competition.

The objection raised to the theory that the remuneration of a factor of production must always equal the value of the marginal net product of the factor in conditions of free competition is that the sum of the products of the number of units of each factor and the marginal net products of those factors is greater than the total remuneration received by all productive groups. This, it is said, clearly indicates an error in reasoning. This is because, as Wieser has clearly shown, the value added to the total product of a productive association by the marginal unit of any factor is the product of that unit plus some addition to the total product resulting from a more intensive use of the other factors already in the association. By the above reasoning both its own contribution and the product resulting from the additional use of all other factors are imputed to that single unit. Thus the marginal unit of each factor has imputed to it something more than its own contribution: it is, as it were, its own contribution plus a little carved out of those of the other factors, which are thus counted over again. The resulting total of the remunerations of each unit used in a group must thus exceed the actual value of the total product of that group, and is therefore more than could, in fact, be paid. Wieser's terminology best expresses this difficulty. The true value of the contribution of a unit of any factor is the value of its "productive contribution" to the total product of the group, while the marginal net product as defined and discussed above is the "product dependent upon the co-operation" of that additional unit. The value added to the total product by the use of an additional unit of any factor could not be obtained without that unit, yet that whole value cannot be imputed to it because that value is the result of the work of that unit in co-operation with the factors already in the group. Wieser continues to show that the marginal utility in production of factors, which should coincide with their actual remuneration, equals their productive contribution at the margin. If this is so, the reasoning typified by the foregoing quotations

from Marshall, showing that in the normal way of business as well as in theory the marginal utility of a factor of production is the same thing as the "product dependent on co-operation" of the marginal unit, must be incorrect. Is this so?

Most writers in dealing with the theory of imputation have been met with this confusion, but it is often dimly apprehended rather than clearly stated. It would appear, for example, that Marshall was fully aware of its existence, for he says that the marginal net product theory is only a partial explanation of the forces determining the remuneration of any factor. In discussing wages he says,[1] "This doctrine has sometimes been put forward as a theory of wages. In reply to any such pretension, it may be objected that the doctrine that the earnings of a worker tend to be equal to the net product of his work, has by itself no real meaning; since in order to estimate net product, we have to take for granted all the expenses of production of the commodity on which he works, other than his own wages." Knight in *Risk, Uncertainty and Profit*, states the difficulty very plainly,[2] but he is of the opinion that such maladjustments would, in fact, be so small, the size of the complete productive association being so large in relation to a unit of any single factor, that they could in practice be ignored. "When account is taken of the actual size of industrial society and of the ordinary unit of most agencies, it will be seen that the 'dislocation' is negligible; . . . in the typical case the error resulting from this assumption is not large in comparison with other inaccuracies in the competitive adjustment."

This handling of the problem appears rather to be a shelving of the difficulty than a solution of it. It is, even, difficult to agree that the error would be small, as, though the error in the case of the marginal unit might be small, that error would be multiplied by as many units as are used of that factor. Since he defines the individual unit as being very small compared with the business, the final error must be large.

It appears that the confusion generally has arisen through a failure to state clearly the assumptions on which each writer bases his theory, and to bear those assumptions clearly and continuously in mind.

The problem of distribution in economics is founded in the physical law of diminishing returns or variable proportions. If in a productive association the quantity of one factor is fixed and that of another gradually increased from the smallest quantity

[1] *Principles*, 6th edition, p. 518.

[2] Page 110.

required to produce any recognisable result, the total product will first increase more than proportionately to the increase in the variable factor, then will increase, but less than proportionately, to the variable factor, and finally will positively decrease. At the point where absolutely increasing returns cease and conditions of diminishing returns set in, production is carried on in conditions of maximum total output per unit of the variable factor, or at minimum cost per unit in terms of the variable factor. This is to be regarded as the point of optimum production for the variable factor.

Let us suppose a productive association is formed in which one factor is fixed and the other variable. The fixed factor must be conceived as being something capable only of producing one commodity, to be incapable of division and to be the only piece in existence: the variable factor must be something, say labour, used in all industries and completely unspecialised and the total amount in existence of which must be fixed. Whatever the price of labour the amount used will be such that production is under conditions of diminishing returns as increased quantities of labour are used, but the amount of labour used depends entirely on the rate at which returns diminish and the price which must be paid for a unit of labour. That amount will be used so that the value added to the total product by the use of the last unit equals the price per unit of labour. The price of labour will be determined by competition of all other employers of labour and the total supply, and whatever it is it must be paid by our imaginary business. The only choice left the holder of our rare and fixed factor of production is whether to employ labour and produce or not. Hence the remuneration received by him is the excess of the price received for his output of goods over the wages paid to labour. Suppose, for example, the price of labour falls, so that the value added to the product by the employment of an additional man is equivalent to the cost of that man, an additional man will be employed. The total value of the product is increased by the amount which must be paid him, but all the other men are paid less, so the amount accruing to the holder of the fixed factor has increased. Since his remuneration depends entirely on the price of the product, and the price of labour which must be deducted from the receipts for the product, his remuneration is a rent: it is determined by prices and can in no way control them.

If all productive associations were of this type, one factor of a given size, indivisible, indestructible, immovable, capable of

the production of one thing and that thing only, and the other factor was homogeneous, continuously divisible, and so easily mobile that it was susceptible to the smallest changes of price, the distribution of the mobile factor would be such that it would be used in each industry up to the point where the value of the product added by the use of the marginal unit was equal in all industries, and the remuneration of the factor would equal this marginal net product. The remuneration of each of the immobile factors would be rents varying as the demand for their products varied, and the total income of all productive associations would equal the sum of the rents of those factors plus the marginal net product of the mobile factor multiplied by the number of units into which it was divided.

It will be perceived that in these conditions the remuneration of the mobile factor, labour, is determined in exactly the same way as the marginal net product in Marshall's reasoning outlined above. Marshall and all who reasoned on these lines were actually dealing with precisely this situation, only it was not clearly defined and shown to be such. He talked of a business organisation, in one case a brewery, with all its plant, barrels, drays, etc. so organised that they formed a complete indivisible unit specialised to the single purpose of brewing beer, and to be retained as a single unit despite any variations in the price of beer for the period under consideration.

The economic system is thus regarded as a series of such organisations, competing for the use of variable factors, or weighing one variable factor against another, one only of them to be used at that time, and thus, as in the case of our example, the variable factor is remunerated according to the added value resulting from the use of the marginal unit in each industry. That is, the whole of the value dependent upon its co-operation at the margin is imputed to it, but all the other factors, for the period under consideration, are not remunerated according to their marginal value as determined by free competition, but share a rent which accrues to them jointly. How that rent is shared between the component parts of each separate organisation depends entirely on contracts or agreements made at a previous time, but these cannot affect in any way the total amount of the remuneration to be so shared. This is the situation existing in the short period when production can be varied only by increasing or decreasing the more fluid factors in an association. In the short period the remuneration of the more fluid factors is equivalent to their marginal net product.

Now let us turn to the hypothetical case of production when all factors employed are mobile and continuously divisible. Let us suppose production to be the result of two factors, land and labour, of which the quantities in existence are fixed. We must assume also the other static conditions of fixed demand schedules and unchanging technique. Let the land be divided into a number of very small pieces in the same way as the labour force is divided into a great number of individuals. No land or labour is to be specialised to any particular industry, but both are to be equally suitable for the production of any commodity, according to the movements of demand. Sales are to follow immediately upon production, no stocks are to be accumulated, and thus the demand for the factors will continually change as the demand for products varies. In these conditions both factors will be remunerated at a price determined by the competition of various uses for them, and there will be no productive materials of any kind whose remuneration is a rent. How, in these conditions, is the due share of each unit of both factors in the total product of industry to be imputed?

For any given quantity of one factor, say land, which may be used we have seen that there is a given quantity of labour for which the cost of production *in terms of labour* is at a minimum for that quantity of land: at this point the optimum amount of labour is being used. For whatever sized piece of land is chosen, supposing for the moment land to be free, there is a given quantity of labour which will yield a certain product at a minimum cost. In setting up a productive association it would be foolish to use either more or less labour because either would raise the cost of the product per unit in terms of labour. When the size of the association can be continuously varied according to change in demand or in the price of labour, the amount of land used would be varied, and production carried on with a new optimum quantity of labour.

From the physical nature of the processes of production in each industry it will be possible to construct a table showing the optimum quantity of labour for use with gradually increasing quantities of land for that industry. In the same way if a fixed quantity of labour can be selected and the amount of land applied continuously varied, a second table could be obtained showing the optimum amounts of land to be used with a series of fixed quantities of labour of increasing size, to produce at a minimum cost per unit *in terms of land.*

If land and labour can both be expressed in terms of a common

measure, as in price, it will be possible to construct sets of tables or scales *for any given prices of the two factors*, one of which will show the amount to be spent on labour for any given amount spent on land, and the other the amount to be spent on land for any given expenditure on labour, in order to produce at minimum cost per unit in terms of expenditure on labour and land respectively. As the amount spent on land increases, that on labour will decrease, and vice versa, though the rate would be different for each industry and method of production. It will therefore be possible to find a point on the two scales which gives the same combination of expenditure on land and labour. This will be the optimum combination giving production at a minimum cost per unit in terms of money for those prices of the factors of production.

When each productive association is using an optimum combination of factors giving minimum cost of production at the ruling prices of the factors it will have no inducement to vary the amounts of any factor used. But in adapting itself to any price-ratio of the two factors with which it may be presented, each association will alter its combination, using more of the relatively cheaper factor and less of the relatively dearer. The total demand of all associations for each factor at the given prices may be greater, equal to or less than the total quantities of each available. If it is greater, the price of the factor will rise through the endeavour of each unit to get as good a price as possible: if it is less, the total quantity of the factor will not find employment, and by competitive action the price which any unit will be willing to accept will be lowered. Thus, through the actions of the factors there will be a further change in the price-ratio to which each association will again have to adjust itself. Thus a final position of equilibrium can only be achieved when each association is using an optimum combination at the ruling prices, and the price-ratio is that at which the total quantities of both factors can find employment.

In this conception of economic society as consisting of an infinite number of continuously changing groups, the remuneration of each factor cannot be determined by the marginal net product or "product dependent on the co-operation" of that factor at the margin. You cannot measure or compare the value added to the output of a combination by an increased use of one of the factors, because as the quantity of one is increased the quantities of each of the other factors in the association will change; the old combination will vanish and a new one take its place.

In a state of equilibrium in this society the remuneration of a unit of each factor must be equal to its productive contribution at the margin over the whole industrial field. In each productive association the total remuneration paid each factor equals the "productive contribution" of one unit multiplied by the number of units of the factor, and the total remuneration received for the output of all associations will equal the sum of the amounts received by each factor. This is the position arrived at by Wieser when he states that [1] "The productive contribution, then, is that portion of the return in which is contained the work of the individual productive element in the total return of production. The sum of all the productive contributions exactly exhausts the value of the total return."

If a sufficiently long period is taken, all factors become completely mobile between industries, and hence in the long period the remuneration imputed to each factor tends to equal its productive contribution at the margin when used in conjunction with all other factors over the whole industrial field.

M. LAWS

[1] Wieser, *Natural Value*, p. 88, Macmillan, 1893.

SOME OBSERVATIONS ON THE LAST EIGHTEEN MONTHS IN JAPAN

In September 1931, as the immediate result of the almost simultaneous occurrence of two cataclysmic events—the departure of Great Britain from the Gold Standard and the explosion on the South Manchurian Railway—Japan found herself faced with a flight from the yen. During 1930 she had returned to gold at a time when the difficulties of adjusting her price-levels to the new conditions were particularly marked,[1] but in spite of growing hardship among the farmers, generally depressed business, and a slight trickle of gold from the Bank of Japan, which began in July 1931, there was no widespread fear for the future of the currency. After September, however, the competition of the depreciated pound in Far Eastern textile markets and the prospects of increasing demands for Government expenditure on military operations led to huge speculative investments in dollars and a consequent reduction in the Bank's specie reserves from 815 million yen [2] (at par, about £81·5 mn.) at the end of August, to 543 million yen at the end of November. The deflationist Government naturally became increasingly unpopular with the military and dollar buyers, and the first act of the new Government, which was formed on the 13th December, was to replace the gold embargo.

Both business men and politicians then expected that during the next twelve months the political change and the undefined "positive" policy of the new Government would have four main results. These were:

1. Steadily increasing Government expenditure on the army, navy and farm relief, leading to large budgetary deficits.
2. No increases in taxation to meet these deficits, but a series of Government bond issues.
3. A consequent inevitable heavy inflation of the note-issue leading to a fall in the internal value of the yen.

[1] See G. C. Allen, "The Last Decade in Japan," *Economic History*, January 1933.

[2] Where not otherwise mentioned, the figures used in this article are based on statistics published by the Bank of Japan.

4. A corresponding further heavy depreciation in the overseas value of the yen.

Such appear to have been the prevailing expectations at the time, both in Japan and abroad, and it is the purpose of this article to examine the extent to which they have been fulfilled up to date (mid-April 1933) and to suggest some possible conclusions from the course of events.

While immediately after the imposition of the gold embargo there was a sharp rise in many wholesale and some retail prices in Japan, much of this was only short-lived. It was the last expectation which was fulfilled to a most disconcerting degree. During the next twelve months there was, with brief intervals, a continuous excess demand for foreign currencies.[1]

The course of the yen was as follows, in spite of the operation from July onwards, of a law for "The Prevention of Expatriation of Capital."

Tokyo Average T.T. Rates.

	New York, $ per 100 yen.	London, Shillings per yen.
		s. *d.*
June 1931	49·4	2 0·3
November 1931	49·4	2 7·3
January 1932	35·8	2 0·9
June 1932	30·3	1 7·9
December 1932	20·7	1 3·1
April 14, 1933 [2]	21·3	1 2·8

[2] Quoted by Mitsubishi Bank, Ltd., Tokyo.

Such an unprecedented depreciation made the 20 per cent. fall in the exchange which followed the great earthquake of 1923 appear comparatively small, and fears were widely expressed that Japan would soon be following in the footsteps of post-war Germany.

[1] While, of course, this demand was the result of very many different kinds of actions by business men and others, it may be of interest to record those which were particularly noticeable in Japan (note that the greater part of Japan's foreign trade contracts are in dollars or sterling):

The speculative purchase of dollar exchange by banks and their customers.

The heavy purchase of imports, particularly raw cotton and wool, three to six months ahead of the normal time.

An increased rate of repayment of sums owed abroad.

The holding back of export bills from the market by exporters, and the collection and deposit of the proceeds abroad.

The purchase of long-term foreign currency securities and the almost complete stoppage of borrowing from foreign countries by Japan.

Increasing Government payments for military and naval supplies from the mainland and elsewhere.

The first and second expectations, Budget deficits and consequent bond issues, began to be realised early in 1932, as the needs of the military and farmers became more pressing. Neither the new Government nor its successor, which came into office in May, introduced any increases in taxation. Payments to the national debt sinking fund were suspended, and during the period from January 1932 to March 1933 the excess of Government issues over redemptions amounted to more than 1,000 million yen. The Budget for 1933–4 provides for the issues of at least another 1,000 million and further issues during 1934–5 seem inevitable.[1]

So far, therefore, three of the four expectations have been realised in full measure. Revenue for next year will barely cover half the Budget expenditure; the deficits are being met by record bond issues, which are likely to raise the level of the State and local government debts in April 1934 about 30 per cent. above that of December 1931; and the gold value of the currency unit has been more than halved.

Japan. Debts of State and Local Governments.

(Thousand million yen.)

	State Government Bonds.		*Local* Government Bonds.	
	Internal.	External.	Internal.	External.
Outstanding on—				
December 1931	4·5	1·5	1·5	0·2
March 1932	4·7	1·5	1·5	0·2
December 1932	5·2	1·4	1·6	0·2
(March 1934, probable figure)	6·7	1·4		

Except for the March 1934 estimate, which is based on the Budget proposals, these figures are taken from the Monthly Report of the Tokyo Chamber of Commerce and Industry, December 1932.

But it was monetary inflation which was expected to bring about a fall, both in the internal and external value of the yen, and the decline in the exchange rate took place, mainly in anticipation of this internal depreciation. When, however, the leading monetary statistics are examined, an unexpected situation appears. The following figures show the trend of note circulation and deposits over the period. The position at the end of 1930 is given for purposes of comparison.

[1] Total estimated expenditure for 1933–4 is 2,300 million yen, of which approximately 820 million is for the fighting services and approximately 360 million is for emergency relief works. (Figures published in *Japan Advertiser*, January 24 and 27, 1933.)

Bank of Japan Notes.

Net circulation.

(Thousand million yen.)

At end of—	
December 1930	1·41
December 1931	1·31
June 1932	1·11
December 1932	1·37
March 1933	1·13
April 14, 1933	1·03

The Bank has the sole right of note-issue in Japan Proper.

Deposits in all Banks in Japan.

(Thousand million yen.)

	Cash Deposits.	Special Current, Public and Other Deposits.	Time Deposits.	Postal Savings.	Total.
At end of—					
December 1930	1·86	2·63	7·00	2·35	13·9
December 1931	1·66	2·36	6·95	2·62	13·6
June 1932	1·50	2·45	6·71	2·88	13·5
December 1932	1·69	2·61	6·87	2·70	13·9
February 1933	1·59	2·62	6·95	2·70 (Jan.)	13·9

(Under *Cash Deposits* I have included Current Deposits and Deposits at Notice; under *Time Deposits*, Fixed and Savings Deposits; the Special Current, Public and Other Deposits are partly Time and partly Cash Deposits.)

The note circulation has shown no increase apart from the seasonal and also somewhat inflationary rise in December last year.[1] During the early part of 1932 almost every kind of business was depressed, but as the effects of the depreciated exchange were felt in the export trades and the military and relief expenditure started to grow, the circulation steadily recovered. Since the end of the year it has either been declining or stationary, from week to week. There has thus been no very great or prolonged expansion of the currency since the embargo, though the slow deflation which started in 1929 has been kept in check.

The Cash Deposits show a similar movement to the note circulation and are perhaps a fairly good index to the state of industrial activity, particularly as the use of cheques by private individuals is not so widespread in Japan as elsewhere.[2] Time Deposits fell off during the first six months of 1932 owing to the

[1] The fiduciary issue of the Bank was raised in July 1932, from 120 mn. to 1,000 mn. yen, and this enabled the Bank to keep in circulation the existing quantity of notes, with a smaller gold backing.

[2] See Keynes, *Treatise on Money*, Vol. I, ch. 15, and Vol. II, ch. 24.

transfer of funds by cautious depositors to the Postal Savings. In August an announcement was made that the Postal Savings rate would be reduced in October from 4·2 per cent. to 3 per cent. and a re-transfer took place. The Special Current Deposits, which represent about two-thirds of the second column of deposits, are really Savings Deposits which are withdrawable by pass-book (not by cheque) on demand. The Public Deposits have naturally increased at a time when the funds at the disposal of the Government have been expanding. The total quantity of Bank Money has therefore only slightly increased, while the Savings Deposits and Government Deposits are responsible for the greater part of the growth.

An estimate of the "crude velocity" of the Cash Deposits, calculated according to the methods of Mr. Keynes, is as follows : [1]

(Million yen.)

Year.	Total Bank Clearings.	Cash Deposits in all Clearing Banks at end of year.[2]	"Crude Velocity" of Cash Deposits.	
1926	89,128	1,491	60	falling prices
1927	62,648	1,488	42	banking panic
1930	51,286	1,259	41	deflation
1931	45,982	1,134	41	"
1932	52,613	1,187	44	"positive" policy

[2] Complete figures of monthly deposits are not easily accessible at the moment.

If these figures can be accepted as a rough guide, the velocity of the Cash Deposits was perhaps a little over that of the previous year, but even so it was only slightly above that of 1927, when Japan was undergoing her famous banking crisis.

If the bond issues have not resulted in any increase in the monetary circulation, they must either have attracted funds away from investment in other directions or they must have used funds which would otherwise have been idle. The table which follows shows that probably it is the second alternative which has so far been effective.

The fall in advances, the reduction of the discount rate to the lowest point it has ever reached and the increased lending at call, although the day-to-day rate has fallen to less than half of its level eighteen months ago, together point to the existence of money readily available to take up the bonds. These, of course, would help to swell the banks' holdings of investments. With funds increasingly plentiful the prices of Government bonds have risen.

[1] Keynes, *Treatise on Money*, Vol. II, ch. 24.

All Banks in Japan.

(Thousand million yen.)

	Total Bank Deposits (excluding Postal Savings).[1]	Advances and Discounts.[2]	Call Loans.	Investments.	Deposits with other Banks and Cash in Hand.	Bank of Japan's Discount Rate.[3] % p.a.
At end of—						
December 1930	11·5	11·0	0·23	4·9	1·6	5·1
December 1931	11·0	11·0	0·21	4·8	1·5	6·6
June 1932	10·7	10·7	0·26	4·5	1·4	5·1
December 1932	11·2	10·4	0·38	5·2	1·5	4·4
February 1933	11·2	10·2	0·37	5·4	1·4	4·4

[1] Postal Savings are invested by the Deposits Bureau, an organisation specially founded for the purpose, in State and Local Government Bonds, Foreign Government Bonds and special approved loans.

[2] Includes Ordinary Loans, Loans on Bills, Overdrafts and Discounts.

[3] All short-term rates of interest fell steadily during the second half of 1932 and long-term rates began to follow suit in the last quarter of the year.

The "Kogo" 5 per cent. Government Bond, for example, the price of which averaged 92·5 during 1931,[4] is now being quoted at 99·4. The recent 4½ per cent. issues have been made at 96½.[5]

The course of certain price indices, production and capital investment give some clue to the existence of these surplus funds. The table on p. 265 shows the wholesale price movements of commodities representing a large part of Japan's international trade.

The course of import prices during 1932 was rather what we should have expected—a steady rise which did not keep pace with the exchange depreciation owing to the world fall in commodity prices which took place during the period. The rise was checked soon after the depreciation stopped. Imports appear to be now from 40 to 80 per cent. dearer than before the embargo, according to the commodity chosen. The yen prices of the exports, however, actually fell during the first half of 1932, and it was only when the exchange depreciation was becoming extreme that a boom began. Early in 1933 the trouble in America brought down silk prices almost to their pre-embargo level and the world demand

[4] Mitsubishi Economic Research Bureau; Monthly Circular.

[5] In spite of issues of over 500 million yen and a dwindling note-circulation, since the New Year, the Finance Minister was able to state on April 12 that "Private banks have more cash on hand than at any time since the year-end settlements. Private deposits in the Bank of Japan are also the highest since the year-end. Private banks and large institutional investors accordingly have been forced to keep their funds employed by buying Government bonds." *Japan Advertiser*, April 13, 1933.

Tokyo. Average Monthly Wholesale Prices of Leading International Trade Products.

(Based on figures published by the Bank of Japan.)

	Imports.						Exports.			
									Cotton Manufactures.	
	Raw Cotton.	Wheat.	Soya Beans.	Oil Cakes.	Raw Wool.[1]	Value of $ in terms of Yen.	Raw Silk.	Silk Cloth (*habutae*).	Yarns.	Shirtings.
Aug. 1931 .	100	100	100	100	—	100	100	100	100	100
Dec. 1931 .	120	111	105	111	19–20½	114	99	97	97	90
June 1932 .	117	125	108	121	—	163	78	86	91	92
Dec. 1932 .	184	175	162	157	19–20	239	155	135	167	178
March 1933 .	180	168	147	138	18½–19 (Feb.)	226	111	109	150	146

[1] There are no available figures of raw wool prices in Japan. The prices in the table are in (Australian ?) pence per lb., *ex* Australian warehouse.* The cost to Japanese mills must have varied with the Australian (or sterling ?) exchange rate.

* Mitsubishi Economic Research Bureau; Monthly Circular.

for Japanese cotton manufactures began to show signs of inability to absorb the increasing production without a substantial fall in prices. Though the silk market in America may recover to some extent fairly soon, tariff news from India and China points to a further decline in demand. It can be realised that with the terms of trade changing in this way, traders are not in the mood for expansion.[2]

During the short boom period, the increased yen value of international trade does not seem to have caused much demand for more bank credit. Many imports were bought speculatively several months before the depreciation became severe, when trade was slack. Also, it seems that an abnormal proportion of the proceeds of the exports were kept abroad and used to purchase further imports. This was particularly easy for the huge family units which control the greater part of Japan's foreign trade and manufacture, and as long as the exchange continued to depreciate. Also, during 1932, as compared with 1931, the total value of imports only increased by 15 per cent. and that of exports by only 22 per cent., a small rise compared with the heavy fall which had taken place in the previous two years' trade.

In domestic trade, apart from the "munitions" and "relief"

[2] A detailed study of this period might give a substantial inductive verification of Prof. Taussig's *Theory of Dislocated Exchanges*, "International Trade," Part III.

industries, which consist largely of the steel, engineering, chemical and soldiers' equipment industries in the one case, and the cement industry in the other, the atmosphere has on the whole been one of depression and prices have been stationary or falling.[1] In spite of the increased employment given by the Government loan expenditure, the index of factory employment rose during the year from 73 to only 77 (1926 = 100). Later figures are not available. The Mitsubishi Research Bureau's index of wholesale prices of domestic consumption goods moved as follows: [2]

(1913 = 100.)

August 1931	168
December 1931	163
June 1932	150
December 1932	166
February 1933	167

The Bank of Japan's retail index, which includes a number of international trade goods, rose from 130 in November 1931 to 146 in February 1933, an increase of about 12 per cent. Although the values of shares of most kinds have risen substantially, the figures of new capital investment [3] showed a fall of about 20 per cent. during 1932 as compared with 1931, and several leading industries are operating at only from 50 to 75 per cent. of capacity.

The causes of this depressed outlook for trade and the consequent tendency to accumulate surplus funds are, of course, due to the continuation of the causes which brought about the pre-embargo domestic and world depression, but in addition the uncertain domestic and international political situation has repeatedly prevented a growth of "bullishness" at home. The Stock Exchange Reports, month after month, contain references to the uncertain outlook in Geneva, China, U.S.A. and last but not least at home. During the period, the Tokyo Exchange, for example, has had to close down on four separate occasions for a total of thirteen days, owing to domestic or international crises.

[1] A few industries have gained from the protection of the falling exchange against competing imports; but as most of the country's imports are raw materials, food-stuffs and semi-manufactured goods which either cannot yet be produced in Japan in large quantities or only at very high cost, this was not of great importance.

[2] Mitsubishi Economic Research Bureau; Monthly Circular.

[3] These figures give "new incorporations, capital increases and bond issues involving amounts over 100 thousand yen, definitely planned by banks and joint stock companies in Japan, her colonies and S. Manchuria." The figures are issued monthly by the Bank of Japan. The March 1933 figures show a large rise owing to the formulation of plans for railway extension in Manchuria. The extent to which these will result in new bond issues is not clear.

The immediate future of the present Government is also much discussed at the moment.

With these conditions in mind, it can be understood that the bond issues have so far been easily absorbed. Almost all the issues have been taken over in the first place by the Bank of Japan, and the Government Deposits have correspondingly increased. As the Government has spent the proceeds, its deposits have decreased, but in the meanwhile the " Other Deposits " of the Bank, which largely consist of idle balances of the ordinary banks, have tended to increase, and these, as well as the surplus deposits held in the ordinary banks, have been used to purchase the bonds from the Bank of Japan as soon as it is willing to sell.

The Government spends the proceeds of the issues in four main ways. First, they have been used for the purchase of army and navy equipment and munitions and have brought about a rise of prices in the steel, engineering and chemical industries and have, to some extent, prevented further falls in other industries. Secondly, supplies of these goods have been bought on the mainland, or from foreign countries and, in so far as this has been on a large scale, it must have encouraged the exchange depreciation. Thirdly, the undertaking of relief work has helped the cement industry, increased the employment of labourers and also acted as a check on falling prices. Lastly, any money which has been lent to farmers to pay off their debts to private individuals or firms has probably tended to return to the banks as Savings Deposits, where it becomes available for new bond issues.

There are thus two leading features of the present position in Japan. In the first place, instead of the expected sequence of Budget deficits, bond issues, inflation, rising prices and exchange depreciation, Japan started with a violent exchange depreciation which has been capable of keeping at bay for only a few months the depressing effects of the prevailing economic and political conditions. Secondly, the " positive " policy is increasing the country's investment in certain directions, but the exact aims of the policy are uncertain and its economic results cannot be estimated. This uncertainty has naturally discouraged other forms of investment and the expected inflationary rise in price-levels has not materialised.[1]

As in most countries to-day, it is, in Japan, impossible to see

[1] The yen may thus at present appear to be greatly undervalued in terms of other currencies, but any signs of a big movement in the exchange are likely to be met by " pegging " operations by the Government Banks and the attempted enforcement of stricter Exchange Control legislation.

ahead reasonably clearly even a few weeks, but unless the world depression lifts fairly rapidly, or the United States' demand for raw silk quickly develops, or the political outlook becomes less vague, it is quite possible that the Government will be able to obtain internally sufficient funds for its policy for several months to come without raising price-levels. The increasing total of interest payments can also, of course, be met for a short time without difficulty.

Whether the bond issues will slow down in the fiscal year 1934–5; whether the Government's investment will ever yield a direct economic return, and if so, how soon; whether the policy will result in China becoming a more settled or more unsettled market for Japan; these are, at the moment, largely political questions.

Tokyo University of Commerce. N. SKENE SMITH
April 17, 1933.

REVIEWS

The Means to Prosperity. By J. M. KEYNES. (Macmillan & Co. 1933. Pp. 27. 1*s*.)

LA nouvelle brochure de M. Keynes a justement soulevé dans le monde entier, le plus vif intérêt. Rien de ce qui sort de sa plume n'est indifférent. L'union d'une imagination constructive d'une rare puissance avec une clarté d'exposition lumineuse, sont trop exceptionnelles, pour ne pas susciter la plus sincère admiration, même, lorsque comme nous, on ne peut adhérer au fond même de ses idées.

Le plan de M. Keynes consiste à associer deux suggestions souvent faites déjà : (1°) la mise en train de travaux publics internationaux, et (2°) une augmentation des crédits internationaux par augmentation des réserves des banques d'émission au moyen de " gold-notes." Le but poursuivi est naturellement d'obtenir enfin cette hausse des prix vers laquelle tendent aujourd'hui les efforts de tous les gouvernements en dépit d'échecs constamment répétés.

Les travaux publics projetés devront être *internationaux*, parce que des travaux purement nationaux risqueraient de provoquer dans les pays qui les entreprendraient des importations croissantes de marchandises, et, par suite, de bouleverser leur balance des Comptes. Or, il s'agit dans la pensée de M. Keynes, d'associer une balance commerciale favorable à une augmentation du travail dans chaque pays, deux résultats qui, jusqu'ici n'ont jamais été obtenus simultanément. En même temps, ces travaux exigeront une large extension de crédit, et, pour la provoquer, il faut commencer par accroître les réserves des banques d'émission. On l'obtiendra en remettant à ces banques des " billets-or " variant avec le montant de leur encaisse. Le chiffre maximum pour chaque banque ne dépassera pas 450 Millions de Dollars. Le maximum de l'émission totale s'élèverait à 5 Milliards. Ces billets-or seraient émis contre remise à chaque banque de titres de chaque gouvernement dont le remboursement or serait garanti par ceux-ci. Ces billets-or ne pourraient, du reste, circuler qu'entre les Trésoreries et les banques d'émission. Ils seraient exclusivement destinés à servir de couverture à l'émission par chaque banque d'un nouveau

montant de ses propres billets. Les billets-or ainsi garantis pourraient servir, non seulement à faciliter la mise en train des travaux publics, mais à l'acquittement des dettes internationales, au rétablissement de l'équilibre budgétaire, à l'accroissement des crédits commerciaux, etc., etc. Grâce à eux, par conséquent, seraient résolus la plupart des problèmes qui nous angoissent à l'heure actuelle : problèmes de dettes inter-gouvernementales, de dettes privées gelées par les accords de Stillhalt, des déficits budgétaires, etc., etc. Bien entendu, ces émissions auraient pour condition, la stabilisation de chaque monnaie vis à vis de l'or à un taux aussi voisin que possible d'une parité définitive.

Voilà donc résolus par une méthode simple la plupart des problèmes soumis actuellement à la Conférence Économique Mondiale.

Malgré tout le talent avec lequel elle est exposée, nous ne la croyons pas efficace. Qui croira tout d'abord qu'une augmentation nouvelle des encaisses des banques d'émission soit vraiment nécessaire en France, en Angleterre, aux États-Unis, en Suisse, en Hollande ? Ces encaisses sont plus que suffisantes pour servir de base aux plus larges crédits . . . si seulement ces crédits étaient demandés ! Qui pourrait d'autre part accorder aujourd'hui à des billets-or garantis par les gouvernements, la moindre confiance, alors qu'à l'heure actuelle les clauses-or inscrites dans les contrats les plus solennels n'ont, aux yeux des gouvernements et même, des banques d'émission aucune efficacité en cas de dévaluation monétaire. La chute du dollar et les conséquences qu'on en tire, viennent de montrer, une fois de plus, la fragilité de telles clauses devant la pression d'une majorité de débiteurs impatients de secouer le poids de leurs dettes. Qui, enfin pourrait croire après les expériences faites pendant trois années consécutives aux États-Unis comme en Grande Bretagne, qu'une simple augmentation de moyens de crédit pourrait agir sur le développement de la crise ? Les méthodes d' " open market policy " comme remède à la crise, ont fait une faillite retentissante conformément, du reste, à tous les précédents historiques. S'il est une théorie que l'expérience a définitivement condamnée, c'est bien celle qui croit pouvoir provoquer par l'augmentation des moyens de crédit, une demande accrue des moyens de crédit.

Quant aux travaux publics, sans parler des difficultés budgétaires que soulève leur mise en train ; il est trop évident qu'ils ne feront qu'enlever au marché des capitaux indispensables aux entreprises privées. Ce ne sont pas les capitaux qui font défaut,

c'est la *demandes des produits à un niveau de prix correspondant à l'état actuel des revenus et des forces productives.* Nous assistons à une formidable réadaptation du niveau mondial des prix contre laquelle les médecins de l'Économie sont, en réalité, quoique qu'ils ne veuillent pas en convenir, totalement dépourvus d'action. Cet ajustement correspond à un assainissement devenu inévitable à la suite des plus formidables abus de crédit que le monde ait connus. Il est trop clair que si l'on veut augmenter la demande, le seul moyen artificiel qui soit à notre portée, est une inflation *agissant directement sur le pouvoir d'achat des consommateurs.* Il faut dire clairement si c'est cette inflation-là que l'on souhaite. Son effet sera de diminuer la charge des dettes privées et publiques suivant une méthode que tous les siècles, sauf le 19ème, ont bien connue, et qui paraissait définitivement condamnée. Mais, si cette méthode est efficace pour réduire les dettes, elle n'a rien de commun avec un relèvement des *prix-or* dans le monde. Ce relèvement des prix-or, ni les particuliers, ni les gouvernements ne disposent d'aucun moyen pour le réaliser. Une inflation généralisée ne peut aboutir qu'à une *diminution* des prix-or, et non pas à une augmentation de ces prix. Rien ne sert, à notre avis, de dissimuler cette vérité évidente, que tous les efforts des gouvernements pour créer une inflation nouvelle, n'aboutiront qu'à *transférer les charges du passé des débiteurs aux créanciers.* Il serait plus sincère et plus franc de déclarer ouvertement que tel est le but poursuivi, comme viennent de le faire les États-Unis.

A notre avis, ce déplacement des charges peut se faire par des méthodes moins dangereuses que des méthodes monétaires. Celles-ci aboutiront simplement à augmenter l'incertitude et l'anxiété actuelles et à retarder une reprise économique dont nous voyons heureusement dès aujourd'hui des signes précurseurs, qui traduisent une fois de plus cette puissance spontanée de récupération qu'Adam Smith a si justement remarquée, force de récupération qui agit " en dépit des fausses prescriptions des médecins " et qui est encore la meilleure garantie de santé du corps social comme du corps humain.

La seule contribution sérieuse que la volonté humaine puisse apporter à cette récupération est la stabilisation, par chaque pays ayant des réserves-or suffisantes, de sa propre monnaie et la diminution générale des restrictions au commerce international. Si l'on ne laissait pas le monde entier en suspens par les hésitations que l'on manifeste au sujet le ces deux mesures, nous n'en serions pas au point où nous sommes aujourd'hui.

CHARLES RIST.

Recovery. By SIR ARTHUR SALTER, K.C.B. (Bell. 1933. Pp. 306. 5s.)

IT is now nearly a year since the appearance of the first edition of Sir Arthur Salter's widely-read review of the political and economic scene. In that the author gave his diagnosis of and prescription for our major ills, repeated substantially unchanged in this new and cheaper edition. Indeed Sir Arthur comments, in a new introduction, on the fact that in only one important respect does his text require to be modified. The reparation question, of which he then offered a solution, is settled. For the rest, apparently, the world has been content to read and admire his book and to proceed unmoved along paths whose disastrous destination that book so eloquently portrays.

Sir Arthur sees the economic depression mainly as the result of the inability of the old order of private initiative and enterprise to adapt itself to the strains now imposed upon it, and as cruelly aggravated by a financial crisis which also is the result of trying to make machines do work for which they were not designed. In particular he describes the breakdown of the gold standard in a world in which debtor-creditor relations have been violently changed by uneconomic liabilities and in which it has become fashionable to sterilise gold contrary to all the old rules; and he advocates a good dose of reflation to give the right start for a currency of managed gold. He repeats the sadly familiar tale of the breakdown of foreign lending, illustrating from his own wide experience some of the ugly political bargains associated with foreign loans in the bad old days. He pleads for a settlement of war debts which would imitate at least two of the principles of the Lausanne reparation agreement, namely, a long moratorium and a drastic reduction of totals. In a chapter devoted to tariffs and commercial policy he reviews the melancholy course of history since the World Economic Conference of 1927, and gives valuable practical suggestions how the policy of individual states might be directed into channels more consonant with the liberal trade policy which, he reminds us, is unanimously applauded as the best course for the world as a whole by the entire body of expert opinion; discussing particularly the possibilities of limited regional agreements for freer trade and the double-edged character of the most-favoured-nation clause. And he looks forward to a more conscious planning of economic activities to be evolved from national and international cartels and representative Economic Councils with a definite official status. Finally, in the

last third of the book he turns from economic to political issues, estimating in a brilliant review of events since the treaty-making of Versailles what are the chances of a peaceful future for the world.

Inevitably the effect of this book is to concentrate attention rather on the peculiar features of the present depression than on those which it has in common with its predecessors. Sir Arthur opens with a very short analysis of the course of the business cycle and then devotes the rest of his pages to contemporary history. It is possible that some economists, while endorsing every word of his comment and criticism of that history, will feel that this method of treatment may distort the true proportions of the case in the mind of the non-economic public. Three-quarters of the book is devoted to exposing the fearful effects produced by applying the wrong remedies to a patient who is mortally ill. It does not follow, of course, that if we discard these remedies the patient will quickly recover or that if we had not applied them he would never have been ill; but some of Sir Arthur's readers will probably jump to this conclusion. They may run away with the idea that if it had not been for restrictions on international trade, and for war debts and reparations, we should all be swimming merrily in a rising tide of prosperity; and this, at least on one reading of the structure of our economic system, is gravely misleading.

It should be added that the book bears on every page the impress of a mind whose essential humanity and breadth of outlook have been enriched and not, as so often, contracted by many years of official experience. Its genuinely international quality is, for example, admirably illustrated by the author's sympathetic presentation of the divergent attitudes of mind inspiring contemporary British, French and German policy on disarmament or in the days of Locarno. Indeed of the whole it may be said shortly that the book has two outstanding merits. The author can feel; and he can write.

BARBARA WOOTTON

The Functions of Money. By LEONARD ALSTON. (Macmillan & Co. 1932. Pp. viii + 139. 5*s*. net.)

THESE three chapters, "English Monetary Habits," a description of banking in England, "The Changing Value of Money," a dissertation on the causes and effects of movements of prices and proposals for controlling them, and "Money, Capital and Human Activities," an examination of the connection between money and

economic progress, must have made interesting lectures, if that was their origin, as the description of the author on the title-page as "University Lecturer" at Cambridge suggests. Instructive too, provided the audience were sufficiently sceptical not to accept everything without question; and they would not have the usual excuse for not questioning, "We could not understand much of it, so no doubt it was all right," for Mr. Alston does not wrap truisms up in equations, and possesses the quality of intelligibility which seems to be dying out in economic expositions.

He raised high hopes in my mind by saying in his Preface that with regard to the monetary theory of the moment he felt inclined to call out, like the child in Hans Andersen, "But the King has nothing on." These hopes were, however, soon dashed to the ground. He is really a most faithful follower of the reigning school. With it he allows himself to be confused by the different meanings of "saving." He can only think of three ways in which Crusoe can accumulate, and all three involve either consuming less or working harder *than before*, and his application of this to the "emergence of a nation's capital" (p. 114) assumes that either "extra" toil or abstinence from "customary" consumption is required. In fact, of course, just as an individual in our society begins to save or "put by" because his earnings or other items of income have risen without any increased exertions on his part or any reduction of his consumption, so both Crusoe and societies begin to accumulate because their productive power and their output have risen, and not because they have given extra toil or diminished their customary consumption—more probably they will have concurrently reduced their toil and increased their consumption, though they will not have increased it as fast as their production. Want of recognition of the fact that the "abstinence from consumption" which is said to be requisite for accumulation is not reduction of customary consumption, but merely abstention from consuming the whole of income, leads Mr. Alston into undue complacency with the persons who want a perpetual "favourable balance of trade" *alias* a perpetual export of capital without any return. Seeing that the exportation has involved no reduction of consumption and thinking it has involved only a loss of leisure, Mr. Alston regards the loss as trivial. But of course more leisure is not the only alternative to exportation of capital; the labour and machinery employed in producing the exports might have been employed either in producing more goods and services for home consumption or in producing new equipment situated at home instead of abroad.

If we had not paid so much for the construction of railways in Russia and lost it all, we could have fed or educated ourselves better or built better houses or constructed the Severn barrage.

Moreover, Mr. Alston has not the least desire to explode the reigning theory that the Big Five and " some fifteen minor banks " have " created out of nothing " a vast mass of some substance which they call " bank money." He only wants to quarrel with the reigning theorists because he sees that they sometimes at any rate admit that the banks have been entrusted with something or other by the world outside them. He belabours Mr. Robertson and even Mr. Keynes (pp. 17–18) for seeming to countenance the very common belief of those who have credit balances at banks, that they are for the time allowing the bank to dispose of " resources " or " savings " which they might have dealt with otherwise. Why he thinks this belief unfounded it is difficult to discover. He asks whether " in using " bank-notes we " can be said to be placing resources at the disposal of the Bank," and assumes that the answer will be in the negative, whereas the proper answer obviously is that whoever gave the Bank gold, or property in Threadneedle Street, or securities, in exchange for the notes, " placed resources at its disposal," and the holders of the notes have since voluntarily refrained or been restrained by Act of Parliament from presenting the notes and withdrawing the resources. The only other semblance of an argument produced is the statement that " a simultaneous demand from all holders of current accounts that they should be given in visible bearer money one-fifth of what is due to them would bring every bank down with a crash." But what of that? The fact that the resources are not in a form which will at once meet a demand which really occurs does not show that they have not been placed at the disposal of the banks. I remember that about 1904 I broke one of the biggest of the fifteen minor banks by presenting a cheque for £5 and asking for sovereigns. The resources of the bank were temporarily unavailable, because the clerk in charge of the sub-office had forgotten to bring the usual parcel of gold from the office nine miles away, but the bank had received the resources all right. Still less does a bank's inability to meet at once a demand which does *not* in fact occur show that it has not had resources equal in amount placed at its disposal. A footnote to the passage (p. 18) asks if the doctrine of resources is equally true " of a perfectly counterfeited set of currency notes," and assumes a negative answer; but of course the answer is in the affirmative. The forger who issues the notes gets resources in

exchange for them, though he fraudulently shifts any obligations undertaken by the notes on to the shoulders of the bank by which they purport to be issued.

To anyone who believes that the banks do not get resources from their customers it must seem very odd that they should ever pay any interest on the money which has (not?) been put at their disposal by those customers. It is not surprising, therefore, to find Mr. Alston taking an attitude of violent hostility to the payment of interest by the twenty banks, or rather to the payment of what is known as "deposit interest" in London and places following the London practice, for he says nothing about the interest on current accounts paid even in a large part of the area served by the twenty banks. To the ordinary mind not obsessed with belief in the creative powers of banks the deposit-interest system seems a reasonable arrangement by which customers are induced to leave with the banks sums which they happen not to require till a few weeks or months have elapsed, and which are in excess of what they and the banks agree to be sufficient for their current accounts. But Mr. Alston regards it as an arrangement by which the customer exacts "a sort of blackmail fee" from the bank. The "blackmailer" actually has the temerity to say, "If you don't pay me some interest, I'll not let you have the use of my money." The payment is "to the detriment of the community because the 20 millions or so" annually paid compels the banks to charge more for loans, and holds up the rate at which the Government can borrow.

Oddly enough this attack is on p. 23, opposite a page on which Savings Bank customers appear to demand interest on their 400 millions without any moral stain on their characters, and without in the least raising the rate at which Government can borrow. Apparently the Savings Bank depositors do put "resources" at the disposal of the Post Office and Trustee Savings Banks, and these resources are then passed on by the Savings Banks to the Government, and 400 millions of the National Debt is thus really owing to the customers of those banks through the mediation of the banks. But if these same customers were attracted by the invitations to small depositors displayed in many of the windows of the branches of the twenty banks, and withdrew the whole or any part of the 400 millions from the Savings Banks and put the sum into the twenty banks, which would take over the Government securities so far held by the Savings Banks and pay interest to their new customers, then Mr. Alston would regard these formerly respectable savings-bank depositors as having become

transformed into blackmailers, whose blackmail would be paid by an addition to the rate of interest paid by private and public borrowers !

The climax is reached when Mr. Alston decides that " there is, of course, no social justification " for deposit interest " any more than there would be for our claiming interest from the Issue Department and the Mint for notes and coin that we guaranteed to keep locked up in our money-boxes." He evidently overlooks the fact that any bank of issue not tied up by legal requirements of metallic cover and any mint issuing token coins of low intrinsic value would find it very good business to pay a small rate of interest to people who could be trusted to lock up or destroy their issues.

The apparent contradiction between the doctrine that customers' credit balances are not resources placed at the disposal of the banks and the doctrine that these same customers " blackmail " the banks by threatening to withdraw them can perhaps be explained by the fact that Mr. Alston regards the threat as mere bluff foolishly swallowed by the banks. In this he is merely working out the natural conclusion of the reigning school's belief that banks –the banks that *are* banks—" create deposits." If the transfer of 400 millions from the Savings Banks to the twenty banks would be a creation of 400 millions of deposits by the twenty banks without any volition on the part of the persons who own the 400 millions, it is impossible to see why the banks should be the least alarmed by the suggestion that if they paid no interest, their customers would take good care to let them have much less " resources," *alias* money to lend out and invest. If banks can " decide," as the reigning school often say, " to increase deposits," they can surely decide that deposits shall not diminish ; they need have no fear of their customers either lending or investing direct or resorting to any of the numerous agencies other than banks which are intermediary between lenders and borrowers.

As a final example of Mr. Alston's inability to see the real character of his King's garments we may take his very mild attack on the account of the relation between result of saving up money in banks given in Mr. Robertson's *Money* (pp. 94–5). Relying on the premiss that " nobody, broadly speaking, except shopkeepers, railway booking clerks and similar repositories of petty cash can put anything into the banking system which was not there already," so that there will be no increase of aggregate deposits giving the banks more money to lend or invest, Mr. Robertson argues that in the absence of high policy on the part of

the banks, "the daily stream of money coming on to the markets" will be reduced, and this will cause a fall of prices, which will enable the non-abstentionist part of the community to buy with its money-income all that it used to buy, and also what the abstentionist part now refrains from buying (both for consumption and investment); and so, he concludes, "the intended thrift has all gone to waste and failed to benefit trade and industry in any way." Mr. Alston's only objection to this is that it does not show that any harm has been done, since the non-abstentionists have gained all that the abstentionists have lost. It does not occur to him to question the premiss on which the whole is built. No doubt he sees that if Mr. Robertson gave orders that half his income was to be paid to Mr. Alston on loan till further notice, Mr. Alston paying him only a small "blackmail fee called deposit interest," Mr. Alston would have more money to lend or invest, and that this would be true even if there were twenty Mr. Alstons and five million Mr. Robertsons, and the Alstons held themselves out as ready to accept all that the Robertsons liked to lend them. But he accepts cheerfully the doctrine of the reigning school, that if the Alstons call themselves bankers, and the Robertsons call themselves depositors, this will no longer be true. He agrees that bankers are not, as was once supposed, a class of persons who hold themselves out as ready to borrow all that is offered them, in the expectation that they will be able to lend or invest most of it at a profit on the whole, and who are naturally prone to lend and invest more when more is brought to them. Instead of that, they are the one class to whom the rest of the community cannot, however much it wishes, lend anything more than they have "already." And *a fortiori*, I suppose, if nobody can lend them anything more than they have, nobody can transfer income or capital to them by way of gift or bequest (supposing anyone wanted to, which is unlikely, but worth considering as a theoretical possibility). "Curiouser and curiouser," the inhibition on the public's power to lend and give is supposed to be imposed somehow by the introduction of those written orders to pay which are called cheques, since the use of such orders appears to be the criterion which distinguishes the banks which *are* banks from the savings banks and other banks which are only so-called. At present, when the savings banks use a cumbrous system of deposit books and warrants, the inhibition does not apply to them, but if they managed to introduce a cheque system no one except repositories of petty cash could put more into them than is there already!

EDWIN CANNAN

The National Income, 1924–31. By COLIN CLARK, M.A. (London: Macmillan & Co. 1932. 8vo. Pp. x + 167. 8*s*. 6*d*.)

IN an article contributed to the ECONOMIC JOURNAL in 1931, the author of this further study of British statistics gave the readers of the JOURNAL a sample of his quality. The more detailed work now published is a particularly welcome indication of the existence of a body of real students eager to utilise the increasing quantity of information that is gradually becoming available regarding our national affairs, work, wages, output of industry, etc., etc. The present writer has wished, when reading the book, that it had been given a more generous allowance of space—and of time for bringing together information available to-day and the lack of which has hampered the author. His work is particularly welcome as a contribution to the interpretation of the data of the Censuses of Production, as it is clearly desirable that this should not be left to the official publications in which the data appear.

Mr. Clark has shown us how these data can be used to prepare a series of surveys of vital importance to those engaged in public affairs. He presents us with figures prepared to represent the aggregate productive output of the country year by year, its composition according to major industrial groups and according to the purposes to which it is applied. His concluding chapter presents a series of calculations aimed at the determination of the year-by-year variation of certain quantities needed to give reality to some of Mr. J. M. Keynes' monetary formulæ.

All this is of very great interest, and in many ways remarkably stimulating, particularly in indicating the uses that might be made of the classes of information dealt with, if it were available promptly, and on a fully representative basis. To illustrate, the existing indices of production compiled in this country are used, and quite properly so in the absence of the ideal data, as if they had attained the representative character and precision of calculation doubtless desired by their compilers. In actual fact, a fuller co-operation of industrial and commercial organisations is needed before we can feel a high degree of confidence that the relations deduced are fully demonstrated. If the importance of full and complete trustworthiness in these indicators of industrial movements should, as a result of Mr. Clark's work, be more fully realised, and the bases of the calculations be broadened, by greater willingness of those controlling the information to produce it, the service rendered in the preparation of this book would be of much

greater moment than the conclusions suggested by the collation of the existing partial information.

Mr. Clark, as those who have encountered him will be aware, does not hesitate to challenge the results reached by other students in the field with which he is concerned. He presents for 1924 an aggregate number of wage-earners at work smaller by about a million than the number resulting from the studies of Sir Josiah Stamp and Dr. Bowley, and proposes an aggregate wage payment in that year some £200,000,000 smaller than the figure which they estimated. The manner in which the material is presented by Mr. Clark renders it not quite easy to be confident whether the interpretation of the words "wage-earner" and "wages" may not be at the bottom of the dispute, or at least a main element in it. There is no doubt that the numbers of workpeople insured against unemployment in various industries, as published by the Ministry of Labour, can be reconciled with relevant Census of Production data on the hypothesis that part of the clerical staff, separated in the Census of Production Reports from the "operative staff," is covered by the total of insured persons in the trade. The discussion in the book before us appears to treat all clerical and technical staff, as well as the administrative staff, as "salaried."

As a result, in the main if not entirely, of the divergence regarding the aggregate of wages, Mr. Clark reaches a total national income for 1924 roughly £300,000,000 smaller than that resulting from the Stamp–Bowley calculations. His total is thus 10 per cent. smaller than that reached by the present writer. It does not appear worth while taking up space in this review by discussing whether the available data are readily capable of an interpretation yielding this modest degree of divergence. It may not be inappropriate to note that, while Mr. Clark reaches an estimated net output of industry for the year 1930 greater than that of 1924 by somewhat under 2 per cent., the results of the actual survey for 1930, available at the time of writing, though only partially so when Mr. Clark was desirous of using them, indicate an aggregate net output for 1930 smaller than that of 1924 by roughly 3 per cent.

Mr. Clark complains of certain shortcomings of official statistics, which have been explained at such places as the Royal Statistical Society meetings, and, as he is not alone in his dissatisfaction, a word regarding them may not be wholly superfluous. One of them is the date of issue of some of the results of the 1924 Census. It is clear from various figures in the book that its author was able to make use of data appearing in the last of the 1924 volumes to

be issued (cf. for example p. 92), but that is not the answer to his complaint. He, and other complainants, cannot fail to be aware that the importance of " economy " in departmental expenditure has interfered with the programme of work that would otherwise have been done.

An Appendix, the last of six, is devoted to emphasising the divergences between industrial classifications used in the publications of different departments. It would have been easy, in Cambridge, to learn the essential reasons for such divergences if public statements elsewhere had been overlooked. The character of the documents which serve as the material to be classified in the different offices concerned renders it impossible to ensure any close and detailed comparability of the classifications of the industrial groups with which a mass of workers are associated. The purposes of the Population Census, of the Inspection of Factories and Workshops, of Unemployment Insurance, of the Grouping of Income Assessments and of the Census of Production dictate the kind of information called for in each case, and those who fill up the various forms would almost certainly express discontent with additional questions aimed at rendering parallel classifications feasible. The officials of the departments concerned have not spared themselves in their efforts to reduce to a minimum the unavoidable divergences.

That some errors, or misprints, should occur in a book of this type need not be matter of surprise. Those on pp. 124–25, in which the weighting of indices of price movement for consumption goods and for output as a whole are concerned, leave it doubtful whether the last of these figures on p. 124 or some of the fourteen others has suffered, and what relation the first line of p. 125 bears to the last of the preceding page and the last of the same page. Such oversights probably have no importance in determining such a utility of the calculations presented as has been suggested above.

A. W. FLUX

Purchasing Power and Trade Depression: a critique of under-consumption theories. By E. F. M. DURBIN. (London: Jonathan Cape. Pp. 198. 6*s*.)

MR. DURBIN'S main object in this book is to review critically the various forms of the theory that the troubles of industry are due to an insufficiency of the incomes of consumers to purchase its products; but he is also naturally enough led on to comment on weightier constructions—those of Dr. Hayek and Mr. Keynes —and to outline a tentative and eclectic trade cycle theory of his

own. On the critical side his main conclusion is that the " under-consumptionists " err through ignoring the efficiency of saving in reducing the costs of production, which brings it about that a *constant* rate of saving can be maintained without causing *malaise* ; but he concedes to them that an *increase* in the rate of saving will be liable to lead to difficulty, since the consequent fall in profits in the consumption trades will, in accordance with the principle of derived demand, damp down the increased demand for capital goods which might otherwise be expected to arise as a result of the increased saving. For various reasons this depressing influence will be likely to outweigh and outstrip the stimulating influence of the fall in the rate of interest, and thus to produce an " excess of savings over investment " and a condition of general depression.

The purely destructive part of this analysis is of uneven value. Mr. Durbin deals effectively enough with the crudities of Lt.-Col. Powell and Major Douglas, but the elaborate sophistries of Messrs. Foster and Catchings require to be analysed at greater length if they are to be made intelligible at all, while the treatment of Mr. Hobson's position is extremely perfunctory. The positive thesis of the innocuousness of a constant rate of saving is, within its own limits, cogently and ingeniously built up, though here (as also in the later chapters of the book) I feel myself that Mr. Durbin's argument gives insufficient attention to the technical obstacles which the use of large, discontinuous and durable instruments of production and transport places in the way of industry's power to make steady use even of a steady rate of saving. The demonstration of the possible damage caused by an increase in the rate of saving is also, in my judgment, sound : as is Mr. Durbin's instinct in rejecting the temptation to explain the occurrence of " the crisis " along these lines, though the reasons which he gives for doing so (p. 100) do not seem to accord with his own figures given three pages earlier.

Mr. Durbin's own trade cycle theory is a peculiar compound of those of Dr. Hayek, Mr. Keynes and Mr. Hawtrey, with some added features. The initial cause of trouble, he holds, is the attempt, in the interest of " price-stabilisation," to prevent saving from producing its natural effect of a fall of prices : the " crisis " itself is a purely monetary phenomenon : while the obstinacy of depression is largely due to the fact that the industries producing capital goods have become so swollen as the result of successive inflations that they are more or less insensitive to such increases in the derived demand for their products as can be brought about by engineered increases in consumers' incomes. There seems to

me much force in this last contention, though it is not easy to reconcile with the view previously expressed (p. 150), that this same over-development of the capital-making industries renders it peculiarly easy for inflationary conditions to develop. Indeed it is never very clear whether Mr. Durbin's objection to measures designed to increase consumers' purchasing power in time of depression is that they are ineffective (p. 162), or that they are pernicious in themselves (p. 168); or that while theoretically sound they are likely in practice to be carried on too long (p. 171). Mr. Durbin's own preference is for allowing the excess capacity in the capital-making industries slowly and painfully to disappear, and taking great care never to recreate it. For some weighting of the scales in favour of Stability and against Progress there is, I think, as a policy for the future, much to be said, though it would be hard to prove that it would have been unequivocally beneficial in the past.

This is an engaging book—fresh, modest, independent and stimulating—and not much fuller of inconsistencies than most writings on the same theme! There is rather a large allowance of misprints, some of which are peculiarly damaging to the sense —"produce" for "purchase" (p. 26, l. 11), "changed" for "charged" (p. 40, l. 14), "or" for "as" (p. 76, note, l. 6), a redundant "not" (p. 91, l. 1), "to" for "from" (p. 132, note, l. 3). This subject is difficult enough in all conscience without such extra hurdles!

D. H. ROBERTSON

British Monetary Policy. By FREDERIC BENHAM, B.Sc.(Econ.), Ph.D. (P. S. King. Pp. 116. 5*s.*)

DR. BENHAM wrote this book at the request of Prof. Palyi to explain how Great Britain came to suspend gold payments, the consequences of this action, and possible future policy. The abandonment of "a tradition of over two hundred years" was due to a refusal to "face the facts," with the result that the world depression has been "prolonged and deepened," and the remedy "in short" is again to "face the facts"—by making a speedy return to gold. For Dr. Benham still dwells in that "imaginary academic world" of conservative bankers and City editors where necessary adjustments follow "automatically" from a "sound" policy on the part of the Bank of England. As he wrote in 1931, advising us to *Go Back to Gold:*

"I have learnt to love the way a flexible economic system responds to changed conditions. I resent all attempts to

> hamper and distort the smooth working of this system . . . because I should like to see the real world correspond more closely to this beautifully-working imaginary world, without 'economic frictions.'"

Unfortunately, Dr. Benham's conception of the duty of the actual economic system rests upon an illusion that the recent fall in prices should have been a "natural" one, due to "technical progress," and that our failure to adjust sheltered prices and costs to the fall was therefore the real cause of disequilibrium. But though it is true that "the natural adaptation to technical progress is to allow the prices of goods produced more cheaply to fall"—relatively to others, this does not mean that all prices can fall to everybody's benefit. For our total net product is equivalent to our total income; if the one be "allowed to fall" the other is diminished also, and this reducing process will continue—so long as it is regarded complacently. Such a decline as occurred after 1924 does not mean that costs of primary products were falling relatively to those of finished goods—if this were so the primary producers would not mostly be bankrupt—but that the amount of money available relative to the increasing supplies of commodities was diminishing, and the most sensitive prices were therefore forced down. Thus if the fall in prices was not "natural" but merely due to an artificial relation between the supply of free gold and other commodities, or to the notions of certain bankers that prices *ought* to be continually falling, then our failure to adjust was not obstructionist but realistic, in that it aggravated the trouble and drew attention to a pernicious and intolerable pressure.

Dr. Benham hopes that he takes a detached view; there seems to him—

> "no reason why the rentier should not share in the benefits of increased production, since after all these are partly due to the savings he provides. . . ." Yet—"the ethical grounds for making the rentier share in the sacrifices demanded by the slump are doubtful . . . he was not compensated for the war-time inflations, and if the United States had not inflated, prices would have been falling and his real income rising during the last decade."

It is interesting to learn that Dr. Benham considers a fixed yield should really mean one which allows the bondholder to participate in any increase of profits. But the natural tendency

is for the value of services to increase as technical costs fall, so that the proceeds of technical advance are shared among the factors of production concerned, instead of giving uncovenanted benefits to creditors and increasing the burden of debt. Why should the rentier class escape the consequences of violent catastrophes to which all others are subject? And would our real income really have been increasing if prices had been falling steadily throughout the last decade, instead of slowly until 1929 and violently afterwards? The answer to all who think like Dr. Benham is that if prices are " allowed to fall," the desirable increase in production does not materialise. Carl Snyder's figures for production in the United States during the forty years before the War show that for the first half of this period (1877–96), with prices falling, production per head actually fell by 16 per cent., whereas for the second half (1896–1915), with prices rising, it rose by 50 per cent. It is true that " an inflationary boom cannot continue indefinitely," though the argument (p. 73) as to why a break occurs is not at all convincing, but Dr. Benham makes no distinction between a sudden boom and a slow upward recovery in prices, though the latter gives none of those " large and certain gains to speculators " which he so deplores.

The only reason offered for supposing that our action in giving up gold has intensified the depression is that had we " faced the facts," and raised bank rate to 10 per cent., " prices might have remained stable or risen "! Dr. Benham's sense of realities is sufficiently displayed in his emphasis on the seven " possible dangers of inflation," of which the last—that it might prevent " further desirable wage reductions and liquidations "—is the most astonishing. For the real danger is precisely this " alternative " he recommends so enthusiastically—" facing the facts "—*i.e.* accepting a preposterous fall in prices as " natural," and submitting to a reduction of incomes at a time when there is every reason except human stupidity that they should be increased. Let us " liquidate and have done with it," says Dr. Benham, that is, let us present people whose assets are liquid with immensely enhanced claims on the product of industry! A pleasant prospect for the rest of us.

As is usual with Dr. Benham's work, his case is carefully constructed and clearly argued. Of the twelve chapters, that on the Balance of Trade, in which he distinguishes the various uses of this unsatisfactory term, should be helpful to students.

GEOFFREY BIDDULPH

Economics of a Changing World. By H. V. Hodson; with a preface by Sir Arthur Salter. (Faber and Faber. 1933. Pp. 287. 7*s.* 6*d.*)

Mr. Hodson's main contention is that to-day either the world needs less interference, or it needs more interference, in economic affairs: either we must have a return to nineteenth-century freedom, or else a measure of centralised economic planning. But his book is much more than a plea for the renunciation of ineffective compromises. It is at once an unusually interesting review of current economic theory, and an unusually clear account of recent economic history. He may justly claim, too, that "it presupposes little or no previous knowledge." Nevertheless, his book is perhaps likely to appeal more to those with some economic training than to the man in the street. True, the analysis is all there. The man in the street has all he needs to solve the mystery; but he will sometimes find Mr. Hodson easier to read than to understand. Indeed, at one or two points even his fellow-economists may find him a trifle hard to follow.

In particular, in Chapter V, which otherwise forms an admirable introduction to modern monetary theory, Mr. Hodson seems to me nowhere to explain with sufficient clearness (at any rate for the non-academic reader) the nature of the connection which exists between movements in the price level on the one hand, and the relation between the rate of saving and the rate of investment on the other. It is clear, however, that his general position is very close to that of Mr. Keynes. He is careful not to claim any great significance for the symbolic analysis of pp. 116–18: indeed all he has done is to differentiate Mr. Keynes' second fundamental equation, and the result which he obtains seems to me to confirm his earlier opinion (pp. 96–7), that mere differentiation with respect to time does not get one very far. The fundamental equations are truisms, no more and no less than the old quantity equation, and their differentiation cannot make them otherwise. (Incidentally a printer's error has crept into the second fundamental equation on p. 119: the sign before the second term on the right-hand side should be a plus, and not a minus.)

In Chapter VIII Mr. Hodson passes from theory to policy. As regards the practical problem of stability, his conclusions are sensibly tentative; but from the theoretical point of view, stability must surely mean equality between the rate of saving and the rate of investment. Now Mr. Hodson rightly remarks (p. 223) that, if productivity is increasing, the preservation of this equality will demand a fall in the price level. It is all the more

curious, therefore, that two pages later on he should define stability in terms of the constancy of some price index—and justify this definition as a means of ensuring stable business conditions. In a stationary economy one can see the point of this. But if Mr. Hodson's "changing world" means anything, it means increasing productivity. And with increasing productivity a stable price level can only become inflationary.

There is one other small point where Mr. Hodson is hard to follow. That an income tax levied on profits does not, in fact, have much effect upon the cost of production, most economists would agree. But Mr. Hodson does not seem to me to give the right reason for this conclusion. He argues (p. 251) that where marginal cost exceeds average cost, a tax on profits which owe their existence to this excess cannot affect supply price: for such profits are in the nature of a rent. But if we do not confine ourselves to enterprise with special advantages, it is evident that profits may be a payment necessary to elicit its supply; the problem therefore turns upon the elasticity of this supply. But Mr. Robertson has already discussed this matter (JOURNAL, XXXVII. pp. 566–81, Dec. 1927).

Mr. Hodson has written a stimulating book. To choose only a few examples, his remarks on tariffs (Chapter III), on over-production (Chapter V), on consumers' credit (Chapter VI), and on other forms of negative saving (Chapter VII) could scarcely have been better put. Among other topics he deals with the current state of cyclical theory, the world economic crisis, and the philosophy of public finance: while in his last chapter he touches on the problem of population and the present position of Malthusianism. Perhaps the most striking passage in the book is that which occurs at the end of Chapter VI, where he discusses the various kinds of unemployment, and the possibility of having a number of different "levels of equilibrium." It is difficult to see how the policy of the trade unions can prevent the preservation of equality between savings and investment by a determined monetary authority; but if rates of money wages are inelastic, the price of this equality may turn out to be continued unemployment. Even if we do succeed in curing the trade cycle—and on this point Mr. Hodson preserves a wise scepticism—we may still have to cope with a problem of long-period unemployment. Here if anywhere lies the real dilemma of the present system.

HAROLD BARGER

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Kapitalbildung und Kapitalaufzehrung im Konjunkturverlauf. By Erich Schiff. (Vienna. 1933. Pp. 234. 12 *m.*)

This study of "Capital formation and capital consumption in the course of the business cycle" comes from the Austrian *Institut für Konjunkturforschung,* and for this reason will be welcomed by all who are endeavouring to understand and evaluate the Viennese contribution to the existing perplexity as to the explanation of the business cycle. The author is concerned to demonstrate how dislocation arises through discrepancies between the formation of money capital, and additions to and the maintenance of existing real capital equipment.

Following Röpke, four sources of capital formation are distinguished: voluntary saving by individuals, self-financing out of a firm's profits, taxation or similar compulsory levies, and "monetary capital formation" by the expansion of bank credit in excess of voluntary savings. Dr. Schiff has estimated the proportion from each source in Germany for the years 1925 and 1927 (pp. 23–27). While he concedes the possibility of "real investment" taking place without a corresponding formation of money capital in the ordinary capital market (*e.g.* investment of taxes), the author is more interested in the mechanism by which variations in the formation of money capital do not produce corresponding changes in real investment. This may occur (*a*) through changes in the velocity of circulation of money, or (*b*) through savings being turned over to "financing consumption," and the latter may happen in three ways: (1) the repayment of borrowed capital, (2) the financing of entrepreneurs' losses, and (3) consumers' credit.

Apart from this, capital, though actually invested, may be lost through errors in investment. These include investments which, as it turns out, presuppose the continuation of voluntary savings at a higher level than is, in fact, attained. Here, according to the author, is the explanation of the "apparent paradox of capital scarcity in the face of surplus capacity" of existing capital goods. The scarcity of capital is not a scarcity of instrumental goods; it is consumable goods which are scarce *relatively* to the quantity required to set free the original means of production to carry through investments begun during the boom. The inadequacy of voluntary savings, according to this theory, means so strong a demand for consumers' goods that resources cannot be attracted away into investment except at a price above the price which would be necessary if savings were greater. The expansion

of consumption, before the investments are completed and bear fruit, can only come through a diminution in investment. The entrepreneur sees this situation as one of scarcity of money capital, but this is a symptom of the strength of the demand for consumers' goods. The turning-point in the cycle comes when this demand is satisfied; *i.e.* when the entrepreneur in the capital-producing industries is forced, by the scarcity of capital, to reduce his output of investments. But the resources he sets free are not all employed by the consumption industries—a large proportion remains unemployed, and this is the beginning of the slump.

Such a theory sounds nonsensical until one has grasped the idea of investment and consumption being alternatives, for otherwise there is no conflict between the two. To the reviewer it seems that the Viennese analysis is relevant to a state of full employment; and that once this is reached, investment must be financed out of voluntary savings if a recession is to be avoided. But with unemployed resources available for either investment or consumption, it should be possible for both to advance together. Only if the unemployed resources are of so specialised a nature that they cannot be absorbed into investment need resources be set free from other industries. And if, as Dr. Schiff maintains, savings are needed to avoid a scarcity of capital at the peak of the boom, it does not seem altogether consistent to regard savings as the one thing needful in the slump, when interest has fallen and the scarcity of capital is no longer evident.

But Dr. Schiff adopts the position which is coming to be regarded as typical of the Viennese writers, namely, that the outstanding feature of a depression is the consumption of capital. There is only one way to avoid the worst excesses of a slump, namely, " determined, voluntary reduction of consumption," and for this reason wage reductions are a necessary measure. But it is not clear in what sense wage reductions are a *voluntary* reduction of consumption. The width of the gulf between this theory and those of Mr. Keynes is shown by Dr. Schiff's observation that a wage reduction may be negatived if it leads to a corresponding decline in savings. Unless wages fall by more than savings, it is " road free for the cleansing crisis."

The author states very clearly the objection to the view that a " cleansing crisis " is wholly beneficial, namely, that the firms which are driven to the wall are not necessarily those with the least technical efficiency and capacity to earn profits, but often those whose financial structure hinders liquidity at short notice. Then follow some estimates for various industries of variations in

long and short term indebtedness, and in fixed and working capital, leading to the observation of a "predominantly strong increase in long-term investment in the boom; in the down-swing first a continuation of this growth, sometimes even in an increasing percentage, while the circulating capital already sinks strongly; in the case of long-term indebtedness either an accompanying decline or a relatively small increase is observable, and a most vigorous fall in the case of short-term indebtedness" (cf. p. 170 ff.). There is obviously scope for an extension of such studies. One feels, however, that having noticed this problem, Dr. Schiff passes it by rather too easily, suggesting that after all the cleansing crisis does eliminate the less economic firms, even though they be not the least profitable. This section is the least convincing in the book.

There was certainly room for Dr. Schiff's essay, and it is to be expected that it will provoke closer study of this aspect of business-cycle theory, regarding which the literature, in English at least, has long been recognised to be inadequate.

E. RONALD WALKER

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Cambridge.

Gold Glut and Government. By P. J. M. LARRAÑAGA. (London: George Allen and Unwin, Ltd. 1932. Pp. 187.)

THESE essays are an attempt to end the "conspiracy to keep people ignorant in matters of sound economics" and "to popularise certain notions" by writing "in plain pedestrian phrases." The author approves of J. M. Keynes, C. H. Douglas, and Messrs. Foster and Catchings. As a remedy for the slump he favours *inter alia* inflation (budget deficits are "one of God's own cures for deflation"), limitation of the working day, and "international stabilisation of basic staple products." He writes well, but it is odd that he should combine an admiration for the *Treatise on Money* with a belief that "economic *science* is essentially non-existent."

F. C. BENHAM

Modern Money. By LORD MELCHETT. (Secker. Pp. 278. 10*s.* 6*d.*)

LORD MELCHETT's position in one of the large rationalised industries of England is well known. It is of great interest to find in him a whole-hearted advocate of "planning" as a cure for the economic ills of the world, in particular those connected with cyclical fluctuations. The first part of his book deals with monetary reform, but more than half of it is occupied by rather

vague suggestions of a more general nature. He wishes, for example, to see a Supreme Economic Council to exercise supervision over economic affairs; profit-sharing; more rationalisation; and group migration to the Dominions. The sincerity of the author, and his desire that the community should benefit from the great technical advances which he has seen, cannot be questioned. It is unfortunate that his views are neither clear nor comprehensive.

His suggestions for monetary reform confuse money and the monetary value of real capital. Internally, he thinks we should use a money to be issued freely on the basis of securities by a Discount Corporation, and "limited only by the demand for it" (p. 69). The National Debt should be paid off by sight drafts to be deposited with the banks who would lend the proceeds for industrial development (p. 86). Further, he would like to see Central Banks combine to hold twelve months' stocks of staple commodities, acquired by bills which are also to form a basis on which internal money can be advanced. The purpose of this is to stabilise the prices of such commodities: Lord Melchett apparently is not deterred by the widespread failure of similar schemes. After these proposals, which would raise the price level to some purpose, it is surprising to find that "such a currency is inherently stable" (p. 70).

A different money, based on a large gold cover, is to be used for external trade, and the supply of this is to be controlled rigidly if it seems to be running short. The details of this part of the plan are not given: its advantages would seem to be available already through the existence of the foreign exchange market in which gold currencies are freely quoted.

Lord Melchett's plans would not do what he wants, but it is important that such men should be concerned about these matters.

R. L. Hall

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The Distribution of Consumable Goods. By Dorothea Braithwaite and S. P. Dobbs. With an Introduction by Professor P. Sargant Florence. (Routledge. 1932. Pp. xiii + 304. 10*s.* 6*d.*)

Retailing and the Public. By Lawrence E. Neal. With a Foreword by F. J. Marquis, M.A., B.Sc., J.P. (Allen and Unwin. 1932. Pp. xvi + 191. 7*s.* 6*d.*)

There is a tendency in economic inquiry, especially in the realistic schools, to take any one topic and to pursue it to its

utmost logical conclusion without considering its relation to economic activity and conditions as a whole. This, a well-recognised weakness of the scientific method, is quite legitimate and useful if the objective is uniquely to present and expound hitherto unknown or only secretly-known facts or principles. But when there is an educational and a social and constructive aim it is highly desirable that an attempt should be made to explain the relative importance or significance of the chosen topic in relation to general economic welfare, and to consider the social and economic repercussions and consequences, and particularly the distribution of the anticipated benefit of any reforms that are suggested or implied. Both these books are disappointingly deficient in this respect, and in neither case is the restricted treatment adequately compensated for by the presentation of new statistical or scientifically-ascertained information. This is all the more disappointing because the authors are apparently well qualified, both by business connections and experience, and by economic training, to make a very substantial contribution in both directions. But these books nevertheless constitute new and important additions to the literature on marketing; they are the first in this country to give a realistic and analytical insight into distributive activity. From a constructive standpoint they will certainly focus attention on the distributional problem and probably bring to a practical issue the controversial but none the less cogent question of retail redundancy.

Mrs. Braithwaite and Mr. Dobbs—the latter virtually the author owing to the lamented loss of Mrs. Braithwaite—take their stand, figuratively, on the despatch deck of the factory (producing consumers' goods) and view the distributional (*i.e.* marketing) field from that position. What they see and describe and realistically illustrate are general operations or functions—the operation or function of acquiring and affording information, especially as regards retailers' and consumers' needs and requirements; the operation of preparing goods for the consumer—for example, grading and packing; the operation or function of transporting goods, with particular reference to the difficulties created by consolidated production; the operation of holding or storing goods, in which rate of stock-turn (not very clearly distinguished by the authors from rate of turnover) is an important financial aspect; and lastly, the operation of advertising, which is regarded as involving serious social wastes and which constitutes one of the leading themes of this treatise. These descriptions are not mere technical descriptions of processes or methods, but

economic and often analytical descriptions of functional and interfunctional activity.

The chapters which follow are mainly concerned with what may be called the distributing functionaries, and portray the struggle for strategic position between producer, wholesaler and retailer. What seems to be uppermost in the authors' minds is the extent to which the factory or farm should or can supply the retailer, if not the consumer, direct. In several well-reasoned, well-balanced and illuminating instances Mr. Dobbs shows there are limits and that in actual business, policy must be very largely determined by circumstances. The complete elimination of the middleman (*i.e.* the wholesaler) is not regarded as practicable or desirable in the public interest. There is an interesting discussion of price maintenance and price cutting. The authors appear to disapprove of the former as a general principle though they fully recognise the dangers and futility of excessively small margins. The authors stress that their findings relate only to the competitive conditions typical of Western Europe and America; they refer to the growth within these conditions of Government and monopolistic restriction and control, and, apparently with satisfaction, consider an increase inevitable.

The book has no chapter embodying general conclusions, and the reader is forced into the somewhat painful process of searching for them and their justification through some 300 pages of undivided subject-matter. Actually the book is a descriptive and explanatory study and is not intended to be constructive. It is clear, however, that the authors regard the future limitation of the number of retailers as economically desirable and suggest a system of licensing and a licensing Board.

A second conclusion, and one that is less easily supportable, is that there are excessive social wastes in advertising. This question is dealt with in a special chapter which virtually consists of the article by Mrs. Braithwaite that appeared in the ECONOMIC JOURNAL for March 1928. That there are wastes in purely combative advertising or excessive advertising few will dispute. But the authors ignore, or do not give adequate consideration to the following facts: (1) that advertising, taken as a whole, tends, by increasing sales, to reduce prices; (2) the expenditure on advertising partly subsidises the Press, permitting a paper which costs nearly 3*d*. to be sold for a 1*d*.; (3) it enables individualistic enterprise to pierce through either competition or bureaucracy and reach the ultimate and open-minded consumer.

The style of this book is somewhat heavy and the treatment essentially static.

Mr. Neal's book is more dynamic and vigorous, and if less studious and systematic, is much the more readable of the two. Mr. Neal deals with distribution from the standpoint of the large-scale retailer and takes up a position exactly opposite to that of Mr. Dobbs, He stands, figuratively, on the roof of, say, Selfridge's, and regards different types of retail organisations in respect of their efficiency and of that of the supplying producers beyond. He describes, with no waste of words, the essential differentiating characteristics of small shops, the multiple shop, the co-operative movement and the departmental store, and with an interesting historical approach. Although the author is himself concerned with the direction of a departmental store he frankly exposes the limitations of this type and does not hesitate to point out the strong features of multiple organisation, especially of the "fixed price" variety, with the warning that it is in its heyday in this country and none too popular in Germany and the United States.

Section 2 of Part I deals with the Departmental Store in action, and here Mr. Neal is at his best. Essential aspects, often ignored or inadequately emphasised, such as the economics of occupancy and management from the standpoint of budgetary control, are admirably and incisively expounded. If the general reader only grasps the fundamental importance and significance of the buying function, of slow-moving stock, of the heavy costs of "mark-downs" and of consumers' shopping habits and of the margin of gross profit as the basis of control he will add materially to his understanding of retailing.

Part II, "To-day and To-morrow," is critical and prognostic. Like Mrs. Braithwaite and Mr. Dobbs, the author sees the fundamental difficulties of distribution in the geographical separation of producer and consumer. Unlike them, he stresses the importance of the psychological factor. What Mr. Neal wants to see is an all-round increase in efficiency right down the line from consumer to producer from the marketing angle. He wants greater integration of production and retailing (as regards efficiency and not necessarily financial control); more standardisation and simplification: an extension, in fact, of the multiple shop system of merchandising, and especially that of the fixed price variety. But he recognises that there is a need and a legitimate demand for the individual "speciality" shop. He considers that the type of product should dictate to a greater extent the channel of

distribution. One of the essential needs is to reduce the number of selling points. To-day 90 per cent. (to quote his figures) of retail outlets are, in this country, small shops with an average individual turnover of about £50 per week and taking about half of the total consumers' expenditure in shops (roughly, £1,750,000,000). He regards it as being socially and economically desirable that in future the number of shops should be controlled as a normal feature of town-planning regulations. But he wisely insists that this and all other lines of action must be based on knowledge, on research. It might be emphasised that the quality of the research is important and that mere pedestrian surveys and the collection of statistical data are not sufficient. It must be ruthlessly penetrating. In his suggestions for the reconstruction of the marketing of agricultural produce one sees a lack of familiarity with the technicalities of agricultural production and with the enormous amount of high-grade research, both scientific and economic, that has been in progress for many years.

In concluding this review one may venture to touch upon the wider questions raised at the outset. To what extent is increased distributional efficiency capable of increasing economic welfare, and particularly at the present time? What would be the repercussions and how would the benefit, if any, be distributed? Distribution (as implicitly defined) is merely a field or aspect of business activity, and governed, like every other field, by the great economic factors of taxation, rigidity of wages, monetary policy and international relations. The distributive trades, due to "shelter," steadiness of demand, strategic power and improved technique, are and have been, as a whole, relatively prosperous. As one passes downwards to the "heavy" and primary industries there is a progressive decrease in price level and profits and a progressive increase in unemployment. It would seem important that any benefit, or at least a considerable part of any benefit, should not be retained by distributors nor passed on to the consumer, but passed backwards to those industries which are suffering from the low level of raw commodity prices. The essential index is the margin of gross profit. Increased efficiency in distribution can, economically speaking, only be measured by this index. The retail margin is, say, 25 per cent. and the total margin, say, 40 per cent. The authors of the books reviewed do not say what probable reduction there would be as the result of their suggested or implied reforms. Assuming the retail margin could be reduced to 20 per cent. (on the principle of larger turn-

over due to a smaller number of retailers plus improved technique), the benefit, if retail prices were not lowered nor quantity discounts increased, would pass to the wholesaler or producer. With effective demand constant (at, say, £1,750,000,000), the saving of £87,500,000 if passed on to the consumer would be less than £2 per annum per head, and probably re-spent in shops or on amusements, whereas if the saving found its way into, say, agriculture, it would go some distance towards stimulating profitable production and increased employment. It might be argued that to pass on the saving to the public in the form of lower retail prices would increase consumption. Against this there is inelasticity of demand and the effect of not increasing or of lowering wholesale prices by quantity discount. The retailer does not always understand that there is a limit to unit-cost reduction in industry. The problem is not easy of solution and it would seem that the prime objective should be to follow whatever policy tends, on balance, to reduce unemployment. In the reviewer's opinion increased unemployment as a result of reducing the number of shops is not inevitable, and in any case could be more than compensated by an increase of employment in industry.

W. R. DUNLOP

Cartels, Concerns, and Trusts. By DR. ROBERT LIEFMANN, Professor in the University of Freiburg im Breisgau, with an Introduction by D. H. MACGREGOR, M.A., M.C., Drummond Professor of Political Economy in the University of Oxford. (London: Methuen & Co., Ltd. 1932. Pp. xxix + 379. 21*s*. net.)

IN 1897 Dr. Liefmann published *Die Unternehmeverbände*, and after studying the combination movement intensively in the intervening quarter of a century he now presents us with the ripe results of his research and thought in a book which for long will remain authoritative. To it Professor Macgregor prefaces an introduction in which he attempts to extract what we may call the philosophy of the evolution that has been going on, and in the suggestiveness of many of his comments he adds materially to the value of the original work. A little less than two-thirds of the book (excluding the appendices) is devoted to cartels, the characteristic form of combination in Germany, and the remainder treats more briefly of "concerns and amalgamations" and "trusts or monopolistic concerns." Men, even when their main interests are antagonistic, unite together to promote other interests which are common. The growth of large-scale enterprise has led

to an intensification of competition among producers, who were thus faced with a double risk, first, the loss of fixed capital through not being able to keep works in "continuous and economic operation," and, secondly, the loss of working capital through inability to find a market for the goods produced. Large-scale enterprise and mass-production have produced a "growing divergence between capital-risk and profit," and out of this situation have arisen the cartels, defined by Dr. Liefmann as "voluntary associations of independent enterprises of similar type to secure a monopoly of the market . . . associations with *monopolistic aims*." Associations of producers of goods for sale are alone considered, and to satisfy the definition at least three-quarters of the firms concerned must participate. There is a great variety of forms of cartel organisation according to the nature of the several industries, but the chief are regional or zone, price-fixing, and production cartels, regulating respectively the area of operation, prices, and quantity of production.

"It is not free competition," says Dr. Liefmann, "that is the organising principle of modern exchange, but the *desire for private profit*." Producers have come together to maintain or increase their profits, thus altering the nature of the economic struggle. "To-day all sellers of goods and services have a hard struggle *with their customers* over *price*, whereas formerly they used to struggle *with one another* for the market and the customer got the advantage of this struggle. This struggle has been abolished by means of cartels which are monopolistic *associations*, and thus the struggle with the customer is to-day not one of *individuals* but of *organisations*." Further, the treatment of the buyer has become harsher owing to "the greater ruthlessness which has become normal in business since the War." Cartels have to some extent stabilised prices and reduced capital risks "through an improved adjustment of production to the fluctuations of demand," but they have not artificially restricted output in order to raise prices. The individual firms in a cartel gain the more they allow themselves to be restricted by the cartel and the more they are ready to subordinate their personal outlook to the common interest. Dr. Liefmann notes "a phenomenon which has shown itself the more clearly and frequently as the cartels have grown stronger—namely, that the formation of cartels is a strong stimulus to the *expansion* of production and especially to the entrance of new firms." Competition from new outsiders is a recognised safeguard against monopoly, but the struggle inside cartels for increased quotas has often led to

over-production; trusts escape this internal weakness. "Cartels," he adds, "have not been able to *stabilise demand*. Fluctuations in trade are, in fact, so deeply rooted in the whole organisation of our economic system, with its extreme specialisation and its elasticity of credit, that they are not to be eliminated by a few cartels." Technical progress has not stagnated under cartels and the trend towards larger firms has been furthered either by the amalgamation of similar firms or by the integration of firms in successive process stages; the latter form has been adopted by finishing industries as a defence against raw material cartels. On the other hand, by delaying the suppression of the weaker firms rationalisation is postponed.

Cartels mainly affect prices in times of falling trade, and over a long period prices fixed by these organisations may not differ much from competitive prices. They are "quite unable to influence the price of consumers' goods, especially of goods in general use, to such an extent as might be expected having regard to the great number of monopolistic organisations," partly because the number of producers is very great, partly by the shifting of demand, and partly by resort to co-operative societies. Finishing firms and merchants have benefited by the stable price policy of the cartels. The policy of cheaper sales abroad has been denounced as injuring home trades using the same goods, yet "it is not the cheaper export sales which damage the manufacturers, but simply and solely the high internal prices." Goods have to be exported cheaply to secure the market, and if there was no export the burden of overhead charges would compel internal prices to be raised still higher. Cartels tend to expropriate the wholesale merchants and the latter have either retaliated by co-operative buying and by acquiring productive factories or they have associated themselves closely with the producers as their distributing agencies. Generalising on the broad results of the cartel movement, Dr. Liefmann says: "Up to now, we should not suppose that the influence of the cartels upon price-formation or upon the level of profits has been very great, and we should not generalise from a few particular cases which were peculiarly well situated from a monopolistic point of view. On trade fluctuations, too, the influence of the cartels may not have been considerable. Beliefs or expectations, psychological factors, are here far more important than organisations in themselves. With the help of the cartels, cyclical movements of prices have been to some extent rendered less violent, and the lower levels of the curves have been influenced more effectively than the peaks.

It would be more valuable economically if the quantity marketed were stabilised."

Competition has produced not only national but also international cartels, and the movement in that direction has been speeded up since the War by the break-up of former economic units, by fiercer competition and world over-production, by depreciated currencies, by government neglect of economic problems, and by the growth of concerns and amalgamations. "Whereas formerly international cartels were considered from a strictly *economic* point of view, they have now become an important instrument of *political* policy"; such cartels have been formed between Austria and the Succession States to counteract the effects of the dismemberment of the original unity. "If one views these (territorial) cartels, not by themselves but in connection with the nowadays universally accepted principle of protection, then they take on quite another aspect, since they may serve to prevent dumping, or the policy of cheaper foreign sales, both in the countries of the two contracting parties and possibly also in other countries. They may thus put a limit to further demands for protection and thus counteract the incessant rises of protective tariffs. . . . International cartels, therefore, especially in their most general form of territorial cartels, have above all else the task of remedying or possibly even preventing the disturbances in an industry caused by changes of national commercial policy." "It is the big mass-production industries, above all the highly concentrated and already cartelised heavy industries, and apart from them, the specialist industries that comprise but few firms, that are most suited to the formation of international cartels. It may, in general, be said that international monopolies of raw materials are much more dangerous than monopolies of finished goods." At the same time Dr. Liefmann remarks that "the great problem of the day, apart from the renewal of the iron and steel associations, is to arrive at international agreement in *coal-mining*, but this is rendered difficult by its close connection with the iron and steel industry and by the protective policies of the States." In a later section Dr. Liefmann points out that "we find the protective system, like all such devices of national economic policy, itself setting bounds to its own effectiveness." The cartels use the tariff to the full to put up internal prices and, by the aid of the profits so gained, to dump abroad. Competition on the world markets becomes more and more violent and the different countries keep forcing up each other's tariffs, till the end is an international cartel. "The

question whether economic good sense, which requires the demolition of tariff walls, will prevail over nationalistic exclusiveness or vice versa, will largely depend on whether the present unstable distribution of political forces in Europe ever gives way to a better state of things."

Space will not permit us to deal with the interesting section on State regulation of cartels and of the valuable discussion of boycotts and methods of exclusive dealing (with which, as well as with other trade practices, Professor Macgregor deals suggestively in his Introduction). Dr. Liefmann firmly believes in the efficacy of publicity and in the "institution of a Ministry of Industry on the lines of the American Trade Commission," even, if necessary, to the extent of supervising price-fixing. "The State must also follow up the *financial* constitution of big concerns to a far greater extent than hitherto, if only for the reason that it cannot possibly leave the formation of capital exclusively to the inclinations of the individual capitalist."

A "Concern" is defined as a "merger of firms which remain juridically independent of one another into a single unit for the purposes of productive technique, administration, trading, or (especially) finance." As a rule it is the financial merger which is the most important, generally taking the form of a "holding company" holding (usually) a majority of the shares in the participating companies or of an "interest-group" where a few firms contract to divide their profits in agreed proportions, while retaining their independence. An "Amalgamation" is a complete economic union of the combining firms. Neither concerns nor amalgamations are necessarily monopolistic, and their chief interest to us here is that they foster an "appetite for expansion" among the big firms and so lead to the "Trust," or monopolistic amalgamation, which "is capable of producing much more intensive effects than the looser and more complicated organisation of the cartel." Dr. Liefmann notes the current scarcity of capital in Germany and attributes the growth and probable continuance of amalgamations in Germany to "the ease with which big concerns find capital, and the chance which this capital gives them of carrying through such rationalisation as seems necessary to them." Concerns, like cartels and trusts, overstep national boundaries, and Dr. Liefmann, conjuring up the danger that a country might be "exploited by a few big international concerns," thinks that in that event "the most effective policy" would be to set up "a State import monopoly, organised in intimate association with the home producers and merchants."

Contrary to a popular view, Dr. Liefmann does not think that "capitalism" is on its death-bed, but that it is showing renewed vigour in "creating new forms of organisation" and in "adapting itself to the many changes in the economic structure consequent on the War"—an opinion expressed, apparently, before the world slump. He does not agree in having one planned economy (Planwirthschaft) and thinks that "there is nothing whatever to be gained from the State organising all firms compulsorily in trade associations, and prescribing to them their prices and volume of production." "I consider," he adds, "planned economy, *i.e.* planned interference in economic life, to be far more desirable, and even perhaps necessary, in respect of the choice of occupations —that the State should regulate the entry into all the various branches of manual and intellectual work. Were the State to pursue a far-sighted economic policy in this respect, it could bring about the necessary process of readjustment of the German economic apparatus far more easily than through the direction of enterprise or of capital. It might very well take in hand the necessary placing of young workers in agriculture through the medium of an energetic small holdings policy, possibly in connection with the enforcement of universal compulsory labour for a certain period (*e.g.* a year of compulsory labour service). But in this field practically nothing has been done." With this somewhat startling suggestion we take our leave of a wonderful and stimulating book and offer our homage to the distinguished doyen in this field of economic inquiry.

HENRY W. MACROSTY

The Co-ordination of the Laws of Distribution. By PHILIP H. WICKSTEED. No. 12 in Series of Reprints of Scarce Tracts in Economic and Political Science. (London, 1933. London School of Economics and Political Science. 60 pp. 5*s.*)

WICKSTEED'S essay, first published in 1894, is now available in the admirable series of reprints issued by the London School of Economics. The essay is devoted to proving the proposition that "under ordinary conditions of competitive industry, it is sensibly or approximately true that if every factor of production draws a remuneration determined by its marginal efficiency or significance, the whole product will be exactly distributed."

A large part of the argument is devoted to showing that there is no difference in this respect between land and other factors of production. The modern reader who finds Wicksteed's intricate and ingenious argument unnecessary must be grateful

to him for making it so. For it is characteristic of the progress of economic theory that a proposition which in one generation requires elaborate proof and gives rise to ponderous controversies appears to the next generation to be self-evident.

Wicksteed, like most pioneers in the field of theoretical analysis, attributes too much importance to his discovery. He does not discuss the conditions of supply of the factors of production to the unit of control, but tacitly assumes a perfect market in the factors of production, and puts forward as his only contribution to this side of the question the curious view that (in wage bargaining) "the man, on his side, can insist on having as much as the marginal significance of his work, *i.e.* as much as the difference to the product which the withdrawal of his work would make." But in spite of the fact that he has nothing to say on the conditions of supply of factors, he feels impelled to pour scorn on the traditional theory of rent, a theory which is essentially bound up with peculiarities in the conditions of supply of factors to an industry or to industry as a whole, and has nothing to do with the conditions of demand for a factor by a firm, the subject with which Wicksteed's proposition is concerned.

Moreover, while his mathematical proof and his general argument apply only to the division of the product of a firm, he assumes that each factor receives a reward determined by its marginal productivity to society. His conclusions are thus given an appearance more grand and sweeping than his own analysis can justify.

But his main purpose is to isolate the conditions under which his proposition is fulfilled. He writes, "I use the mathematical form of statement . . . as a safeguard against unconscious assumptions, and as a reagent that will *precipitate* the assumptions held in solution in the verbage of our ordinary disquisitions," and he succeeds in precipitating two fundamental assumptions, (1) that competition is perfect, (2) that constant returns prevail, in the sense that an equal proportionate increase in each factor of production will yield the same proportionate increase in the product. In these conditions his proposition holds good.

It is the second of these conditions that has received the most attention from Wicksteed's successors. For when there are economies of large-scale production an obvious difficulty arises. A certain proportionate increase in each factor will then yield a more than proportionate increase in physical output, and Wicksteed's proposition appears to be invalidated. With this

and other objections Wicksteed's critics drove him to abandon his precise mathematical statement, and in *The Common Sense of Political Economy* the assumptions are once more dissolved in verbiage, although they still appear to be necessary to the argument.

In a foreword to the reprint we are recommended to consult the Appendix to Mr. Hicks' *Theory of Wages* for " a review of the main literature concerning Wicksteed's proposition and a tentative solution of the outstanding difficulties." The upshot of Mr. Hicks' argument is to show that Wicksteed's proposition applies only to the product of the firm; that when there are economics of large scale the marginal physical productivity of a factor to the industry is greater than to the firm (though the account which Mr. Hicks gives of the matter is not perfectly satisfactory), but that since in equilibrium firms are working at minimum cost, Wicksteed's condition of constant returns is fulfilled in respect of the output of the firm, so that the difficulty disappears.

This complication, therefore, has both arisen and been dismissed since Wicksteed's essay was published. But Mr. Hicks appears to believe that firms produce the output at which costs are at a minimum for some reason of their own. He fails to show that it is only because competition is perfect that firms are of optimum size, and thus overlooks the fact that his conclusion merely amounts to saying that Wicksteed's first condition (perfect competition) entails his second condition (constant returns to the firm). Now Wicksteed introduced his first condition for quite another reason. He realised that in the real world competition is not perfect, and he attempts to get over the difficulty by defining the product of the firm as the total " Industrial or Economic Vantage," including " Good-will," and defining his factors so as to include " Notoriety . . . (as measured in some such unit as the command of advertising stations of a given quality) " as a factor of production. But when the product and the factors are defined in this way it is obviously unrealistic to postulate constant returns (in the sense that an equal proportionate increase in each factor will yield the same proportionate increase in the product), and in order that the condition of constant returns may be fulfilled, Wicksteed is driven to the extraordinary expedient of regarding the consumers also as a factor of production. In short, he was not perplexed because constant returns in terms of physical output may not obtain, but because constant returns in terms of value of output cannot

obtain, and he was feeling his way towards a proof that unless competition is perfect the factors do not receive the value of their marginal physical product as wages. It was to avoid this difficulty that he took refuge in the assumption of perfect competition.

However clumsy his attempt to solve the problem of distribution under imperfect competition may be, the fact that he realised its importance makes his point of view more sympathetic to a modern reader than that of Mr. Hicks, who contents himself with remarking that "further consideration of this point would lead us too far into the more arid regions of higher general theory; its relevance to the theory of distribution is remote."

JOAN ROBINSON

The Common Sense of Political Economy and Selected Papers and Reviews on Economic Theory. By PHILIP H. WICKSTEED, M.A. (London: George Routledge & Sons, Ltd. 1933. Pp. xxx + 871. Two volumes, 12*s.* 6*d.*; one volume, 8*s.* 6*d.*)

THIS work, which has been out of print for some time, is now reissued in two separately purchasable volumes. The division is made for the benefit of the student who would buy "a text-book of manageable length" as a general introduction to Economics. He would, however, be well advised to obtain the two volumes; the first because it contains an admirable introduction by Professor Robbins, the second because it includes the application of Wicksteed's analysis to practical social problems in an exposition which "dates" very little even after the lapse of twenty-three years, and collects in addition a number of papers and reviews not previously published together. These include, among others, the famous analysis of the Marxian Theory of Value, and controversy with Mr. G. Bernard Shaw; an article on Political Economy and Psychology reprinted from Palgrave's *Dictionary*; "The Scope and Method of Political Economy" given as Presidential Address to Section F at the British Association Meeting 1913, and reprinted in the ECONOMIC JOURNAL; a Biographical notice of W. S. Jevons, a Review of Pareto's *Manuele Di Economica Politica*, and a Review of Sir Sydney Chapman's *Political Economy.* They form a well-selected and coherent whole in which the expository articles and the critical reviews alike serve to add further emphasis and afford fresh illustration of Wicksteed's most characteristic doctrines. We may quote as the most noteworthy the reversibility of the market supply curve, with its corollary that there is no law of rent distinct from the general law of

the market; and the view "that economic life is not and cannot be isolated"; that the same principle dominates the transactions of the housewife in the market, the management of a great factory or ironworks and the business of a bill-broker, and that Economics therefore studies "a type of relation, not a type of motive." The economic man should now have been turned out by the door, but, to borrow an expression from Wicksteed, he has a tendency to return by the window.

Professor Robbins's Introduction should be read, or better still re-read when the student has reached the end of the second volume.

H. REYNARD

The Letters of David Hume. Edited by J. Y. T. GREIG. (Clarendon Press. 2 vols. Pp. 538 and 454. 50*s*.)

THESE books are excellently edited and finely illustrated. The frontispiece of the first volume gives us the Tassie medallion. Facing p. 370 is Marischal Keith's portrait from the Neuchâtel public library, and facing p. 526 a facsimile of the English draft of Hume's invitation to Rousseau. In the second volume the frontispiece is Allan Ramsay's Rousseau, from the Scottish National Portrait Gallery; facing p. 80 is Cochin's D'Alembert. Hume was not without vanity, and we can fancy him sharing in our admiration of this monument of his lesser writings and magnanimously forgiving the disobedience it involves to his last wishes. He had expressly forbidden the publication of any such things (see Birkbeck Hill's *Letters of Hume to Strahan*, p. 351; Greig, II. 453); and here we have 544 of his letters, great and small, transcribed and edited with scrupulous care and with a fulness of references, in which Hill is Mr. Greig's only rival. Letters are mentioned which cannot be recovered. One such to Muir of Caldwell is described by the writer (jocosely) as "the best I ever wrote" (Greig, I. 43), and some were destroyed by his heir as "too indiscreet"; they may have been of Mr. Punch's sort, "worse than wicked,—vulgar." Mr. Greig prints all he can find, even of the indiscreet order. We miss the (perfectly discreet) letter to Col. St. Paul of the Paris Embassy, introducing Cornet Hume of Townsend's Dragoons, written from Edinburgh, 10th May, 1775.[1] But he has no blind admiration of his hero, and, like the rest of us, would gladly exchange a dozen letters written in the days of Rousseau's folly in 1766 for one other like the four to Francis Hutcheson (1739 *seq.*) or the two to Gilbert Elliot (1751)—or we might add those to Kames, Montes-

[1] See Mr. G. G. Butler's *Col. St. Paul of Ewart*, 1911, Vol. II., p. 250.

quieu, Turgot, and Adam Smith. There are many scraps for economists, especially in the two latter. Hume's Political Economy is not a mere by-product of his Political Philosophy. He gives it that appearance by placing his important economic essays, on Commerce, Arts, Money, Interest, Balance of Trade, Jealousy of Trade, Taxes, Credit, Populousness of Ancient Nations, among his *Essays Moral, Political and Literary* (1752). They rank so high as to make some admirers claim him for the founder of Political Economy. They at least well entitle him to a high place among economists.

It is the penalty of a great writer to excite curiosity about details of his person and surroundings. The best of him is to be sought in his books, and we judge Hume's greatness mainly from the books that roused Kant from his dogmatic slumbers. The littleness, if anywhere, may come out in the letters. But certainly some of the letters help us to see the books in the making. Hill Burton's Life gives the cream of such letters; and they are to be found in Mr. Greig's collection, freshly transcribed and unabridged. Mr. Greig's sources are also more in number than Burton's. See the Introduction to the first volume (xxvi–xxxi).

The second volume swells its Appendices a little (339–454) by giving letters not from, but to, and concerning Hume and his publications. The episode of Rousseau makes a long contribution of this kind. The episode could not simply be passed over by any later biographer; but in his *Own Life* (Vol. I. 1–7) Hume makes no mention of Rousseau. He had been generous beyond measure in providing for Rousseau during the visit of 1766–7. "Great wits" were "sure to madness near allied," and he accused Hume of treachery. Hume, always sane, was eventually unwise enough to answer him according to his folly. It was not a pretty quarrel; the right was too evidently on one side. As a rule Hume was in perfect command of himself. Adam Smith's laudation given (in Appendix L of Vol. II. 452) seems to have been but little exaggerated. If the multitude of miscellaneous letters did nothing more, they displayed character, tested by variety of situations; and happily left to us in the end the right good man of our early impressions.

J. BONAR

Land and Labour in China. By R. H. TAWNEY. (London: Allen and Unwin. 1932. Pp. 207. 7*s.* 6*d.* net.)

MR. TAWNEY was invited to China, first by the Institute of Pacific Relations to prepare a memorandum on agrarian change,

and later by the League of Nations as a member of its Mission of Educational Experts. The result is an outstanding example of the contribution a full knowledge of Western economic history and an intimate acquaintance with modern social movements can render, the former to an understanding of Chinese economic life—whether in its traditional forms or its modern changes—and the latter towards making clearer the possibilities and direction of future progress.

Mr. Tawney's visits were admirably timed. Only in the last few years have the social institutions of China been subjected to scientific study; only recently have universities, research institutions and government offices gathered data—still all too meagre and imperfect—of a kind that can serve as a basis for interpretation. As a grateful Chinese scholar[1] says:

> "Mr. Tawney has put to good use the knowledge of Chinese and foreign scholars. As an accurate summary of existing information the book is already a contribution. But it is more than a summary of other people's work. The author has set China's problems in the proper world-historical perspective, and while doing this he has in no case read Western categories into Chinese life or sentimentalised over China's peculiarities."

The value of a knowledge of social history is, indeed, evident on almost every page and makes the book significant even to those familiar with the field covered, but less well read in the history of the West. The book, there is reason to know, is already setting new tasks and creating higher standards for research.

If the lessons of similarity and contrast to Europe run through the more descriptive sections—the brilliant introductory essay (Chap. I), the rural framework (Chap. II), and the earlier parts of Chapters V and VI, on the Industrial Order and on Politics and Education respectively—they are equally prominent in the consideration of rural possibilities and industrial policy. In its blending of wise counsel with ripe scholarship the whole work is a happy illustration of the help which the West—from whose contacts with China the latter's problems have arisen—can furnish to their solution.

After sketching the main economic features of rural life, Mr. Tawney deals with the problems of the peasant (Chap. III), and then proceeds to discuss the possibilities of development (Chap. IV). A "piecemeal" but co-ordinated and sustained policy is envisaged

[1] Dr. T. F. Tsiang, editor of the *Chinese Social and Political Science Review*.

—one with the purpose, not of replacing the system of peasant cultivation by some other, but of bringing science and invention to the peasant's aid. The steps which Western experience would suggest are detailed with admirable balance: communications to break down the economic and social isolation of the village; science and education in close touch with the needs of practical life; co-operation, the value of which, happily, is now realised by leading bankers and in which the ground appears to be prepared for real advance.

Of the problem of land tenure, Mr. Tawney treats with frankness yet with restraint, and it is recognised that peaceful agrarian development is likely to depend on the removal of the most acute evils. To the measures for combating drought and flood we in the North might wish to add afforestation, to prevent erosion and supply badly needed timber.

The chapter closes with somewhat brief reference to population and the relief that may be expected from migration and industrialisation. The enormous growth of population in India and Japan since the 'seventies and 'eighties raises the question whether it is possible that production should outstrip its increase in China? The promise of relief from industrialisation pictured on p. 108 would appear too optimistic unless qualified by the discussion on pp. 141–3. The comparison with Europe fails to allow for the part played by the New World, which not only absorbed population but created new and cheaper supplies of grain; or for the fact of the late appearance of China in the industrial arena; while in China, which presumably will in the main have to feed the increased numbers from her own resources, the problem of pressure of population upon the means of subsistence is mainly that of the total number of mouths to be fed, in relation to cultivated area and agricultural efficiency.

But the crucial question is perhaps the rapidity with which the factors that tend to reduce the birth-rate can be brought into effective operation. Chinese sociologists feel this so strongly that they doubt the adequacy of such changes as later marriage, the setting of marriage upon an economic basis, the growth of a feeling of parental responsibility and the development of a conscious working-class effort towards better standards of living; they desire to see active steps taken to spread the use of contraceptive methods.

The picture of industrial China is drawn with the same skill and proportion as that of the rural economy, and there is a valuable discussion of the policies which should direct industrial develop-

ment. Due place is given to the old handicrafts and to the change that is taking place in their organisation by the substitution of the merchant-capitalist for the independent small master. Even the coolie is not overlooked. The growth, present limits and significance of capitalist industry, which is accepted as having come to stay and to increase, are set forth; and the safeguards through legislation and trade union action to secure a rising standard of living are discussed.

That this discussion leaves unanswered some of the questions that arise from the inherent difficulty of making a competitive, capitalistic system fit into any programme of reconstruction, and of those connected with the difficulties which have been experienced in China with large-scale enterprise, is inevitable.

As a complement to the growth of mass production, it is suggested that steps should be taken to explore the possibility of developing the organisation of handicraft industries, as is done in some peasant countries in Europe, by the provision of co-operative facilities for credit, marketing and supplies, as well as for training, trade information and technical improvement.

The main outlines of the industrial policies Mr. Tawney recommends are naturally drawn from the broader and more assured lessons of Western experience. But Mr. Tawney is not unmindful of the fact that the real differences that exist between China and Europe will sometimes result in impressing different patterns on the former's new economic life. He offers interesting reflections on Chinese psychology and resources as they affect industrial development (pp. 128–40).

> "What is certain is that, like all other movements that have been imported from abroad and acclimatised in China, [modern industry] will be propagated in a Chinese version or not at all."

It is to be expected that factors which have remained recessive in our civilisation will become dominant in conditions more favourable to them; and *vice versa.*

It is not yet possible to point to established results of this kind. Some observers think they see evidence of a tendency for decentralised, rural industry, organised in the manner our author suggests for handicrafts, to become the dominant form in Japan.[1] In China the part-time, often only half-time, nature of an agriculture without animal industry, the consequent under-employ-

[1] Prof. J. E. Orchard, *Japan's Economic Position*, especially "An Oriental Industrial Revolution," pp. 483–8.

ment in the villages, which must be equivalent to the whole-time unemployment of several tens of millions of people between the ages of fifteen and fifty-four, the intense demand for additional labour at certain busy seasons, and the density of the rural population, all favour the building up of an industrialised countryside, rather than the creation of urban industry; while such technical developments as cheap power distribution and road transport, and the existence of co-operative forms of association unknown at the beginning of the Industrial Revolution, form ready means for realising such a development.

Such a development, if it came, would substitute the trade association or co-operative official for the merchant capitalist now displacing the small master (p. 117). This system might be extended from the processing of agricultural produce—in China this would include the ginning and baling of cotton, the reeling of silk, expressing of oil, desiccation of eggs and canning of fruit—to the more mechanical parts of trades which are now handicrafts: plants for the carding or spinning, dyeing or finishing of textiles having the same relation to groups of weavers as the co-operative dairy holds to the farmers. And where the small master system continued—as in metal and wood-working trades—a similar organisation would be possible. In such ways a new integration of a great variety of the lighter secondary industries might grow up in close relationship to agriculture, mechanised in progressive stages in reliance mainly on electric power.

This is not the place to argue such a policy, but its relation to the rural community, whose standard of living is admitted to be basic in China, may be indicated. To take industry to the farmer is to raise his standards directly and immediately.[1] But the village is too small for many important purposes, social and economic. Its isolation should be broken down by making it an integral part of a larger rural community, consisting of a group of villages within three to five miles of a market town, and commonly embracing from twenty to thirty thousand people. The market centre would be the location of co-operative enterprises, the headquarters of local unions and educational institutions. It would be the scene of agricultural fairs. Within this community, which would develop collective undertakings such as the maintenance of local roads and communications, intercourse between the villagers would be encouraged for all kinds of cultural and recreational purposes, and on the basis of this common life

[1] In a weaving district east of Peking, a loom is commonly said to be equivalent to eight acres of land, that is, to a farm of more than the average size.

new forms of local government of a democratic, representative character would arise. The life of the people has moved in the past in gild and village organisations which have had no organic connection with the government system and, as regards the latter, little touch with the outer world. In modern China, while the attempt has been made to substitute a democratic for the old imperial system, no serious effort has been made to build up new political institutions on the old democratic foundations. A point at which the two may meet and vitalise each other must be found, and it is suggested that this may be discovered in such rural communities.

It is here, too, as Mr. Tawney would probably agree (cp. p. 91), that the universities and other cultural groups can make constructive contributions, that "piecemeal" policies can be given unity, and the different phases of the new life synthesised. The whole process of building such a community is essentially an educational one. Is it not the most direct method of bringing the benefits of new movements to the people and linking industry with cultural influences? The educational system in the narrower sense would include a lower elementary school, of the type proposed by Mr. Tawney and his educational colleagues, in each village which could support one. At the centre would be the higher primary school or group of schools, with vocational training conducted in close association with the industries of the district and the agricultural demonstration work; and this local educational edifice will be completed by less formal but not less vital adult classes, linked with some institution or system analogous to the Danish Folk High School. The co-operative societies and the organs of local administration will furnish strong supports for the educational work.

This outline of the possibility of decentralised industry and its part in the developing rural community has been sketched, partly to indicate the process of local enterprise and experimentation through which new economic and social patterns may arise, partly as an approach to the last chapter. There will be general agreement with Mr. Tawney's suggestions as to the administrative assistance which the national government can derive through the League of Nations; with the recognition that government can only succeed as it shows results that touch the lives of the mass of the people; and with the contention that in translating political rejuvenation into practical terms of social institutions, it is to the schools and universities that China must turn. To the layman these considerations seem to point to the importance of popular

initiative, and of local administration, and to reliance as far as possible on non-political or semi-political organisations, with varying measures of official recognition and support.

The advocate of a functional and equalitarian society is too modest in leaving no place for the social philosopher in the ranks of the foreign friends who may co-operate in the long task confronting China. China must choose her own ends; the new society must be built on Chinese foundations and her own historic culture rediscovered and reinterpreted in the light of her modern requirements. True! but if the political genius of Dr. Sun is to be seen in the choice of his three guiding principles—all of them largely borrowed from the West—there is still much to be hoped for from such contacts between the universities of China and other lands as will help her to fill out her conception of the People's Livelihood and provide her the amplest means with which to fashion her new and larger ends. The dynamic will come from a realisation of possibilities dependent on the interweaving of new elements with the old. To the closer and more sustained cultural intercourse which is desirable for these purposes, it is greatly to be hoped that Mr. Tawney will continue to contribute.

J. B. TAYLER

Yenching University, China.

Twelve Studies in Soviet Russia. Edited by MARGARET COLE. (Gollancz, 1933. Pp. 282. 5*s*.)

Nationalism in the Soviet Union. By HANS KOHN. (Routledge, 1933. Pp. 164. 7*s*. 6*d*.)

THE spate of literature which appears on the subject of the U.S.S.R. seems to be endless. And in dealing with a matter with such important political implications it is clear that every writer, however hard he tries to conform to standards of academic objectivity, cannot escape his own individual prejudices. In the twelve essays edited by Margaret Cole the writers have this advantage, that since they claim to be socialists to start with, they can show within the socialist system a far more academic approach than those who all the time are trying hard to be "impartial" in the face of their own liberal prejudices.

The essays are of varying merit and cover a wide range. This appears to be mainly due, not to careful selection of topics, but to the personnel of the visiting group. In economics we have "The Soviet Economy" by Dr. Dalton, "Finance" by F. W. Pethick-Lawrence, "The Russian Worker" by G. R. Mitchison, "Power and Industrial Development" by T. G. N. Haldane,

"Agriculture" by John Morgan, and, on the border-line between economics and more general aspects of social life, Margaret Cole's essay on "Women and Children." Besides these, there is a selection of essays on certain other aspects of Soviet life: "The Political System" by H. L. Beales, giving some idea of how the Soviet system does actually work, "The Russian Legal System" by D. N. Pritt, K.C., "Architecture and Town-Planning" by Geoffrey Ridley, A.R.I.B.A., "Radio, Press and Publishing" by R. W. Postgate, "Archæology and the Intellectual Worker" by Naomi Mitchison, and "The Film" by Rudolph Messel. It is clear that such a hotch-potch must suffer from important omissions, though overlapping has on the whole been avoided.

One of the best essays in the book is T. G. N. Haldane's contribution. As an expert with considerable technical knowledge it was possible for the writer to appreciate the technical advance which is being accomplished in a very backward country. At the same time the difficulties which are having to be faced are quite clear to him. The fulfilment of the first Five-Year Plan is emphasised, but the difficulties to be overcome are also enumerated: "(*a*) Acute shortage of skilled workers; (*b*) want of efficient organisation; (*c*) defective transport and communication; and (*d*) insufficient scope for individual initiative and responsibility." It should be noted that all these points are in the forefront of all Soviet publicity at the present time, and are not faults observed by the foreigner while being sedulously hushed up at home. Further, it should be noted that the Plan was fulfilled *in spite of* these difficulties, they were therefore difficulties *of fulfilment*, not effective obstacles to fulfilment.

G. R. Mitchison, in "The Russian Worker," succeeds admirably in showing the new workers' psychology which the Soviet system is developing. "The leaders of Russia have succeeded in mobilising and using what may be variously called 'proletarian feeling,' 'the Public School spirit' or 'public opinion.'" With regard to workers' control and the freedom of criticism expressed in the "Wall Newspaper" so common in every Soviet institution, he writes as follows: "There is too much vigour in the result to say that the wall newspaper is mere 'eye-wash': you may compel people to have a wall newspaper, but I know no means of compelling them to have such funny pictures in it." This essay and that of Margaret Cole are a good antidote to the academic worker's general assumption that the things which he is accustomed to enjoy are generally enjoyed and that consequently the Soviet Union has robbed the "population" of such joys.

For some reason or other it generally seems to be the experts on housing that best see Soviet life in its historical perspective. Presumably this is because the extreme primitiveness of the old Russian housing is still so visible that the contrast between old and new is always before the observer, while in other spheres relics of the past have been more or less wiped out and forgotten. Thus Mr. Ridley's lesson concerning the *development* of housing from the very primitive to what may still seem primitive to well-off English visitors, is one which should have been fully extended to cover all spheres of this book. For example, in the case of agriculture, the heading "GOOD LAND AND A HUNGRY COUNTRY" does not define "hunger." Now in the old Russia famine was rife, and almost every spring, in some district or other, people died of starvation. Hunger in the U.S.S.R. to-day means a relative shortage due to bad harvest, poor organisation and so on. But the kind of thing which even this spring is described as being "famine in Russia" by the Press, when compared with the kind of thing which was "famine in Russia" before 1917, shows a not unpleasant picture. Mr. Ridley's perspective, applied to agriculture, could never have permitted such a heading to pass the editor.

A gap left unfilled by the Fabian essays is covered by another book, recently published. *Nationalism in the Soviet Union* is, however, written from rather a different standpoint. The author has endeavoured to get clear as to the attitude of the Soviets to nationality, but at the same time as his knowledge of this particular aspect of Marxism seems fairly comprehensive, it is linked up with a strange attachment to the past. Thus, quotations from Communist theorists come side by side with quotations from the Old Testament, and instead of stressing what is new in the socialist attitude, the writer is always trying to link it up with a return to the Middle Ages. The author does make clear, however, the extent to which Communism and the national question are linked up, and is correct in pointing out that while Communism stresses the fight for liberation of all suppressed nationalities, since this is also a fight for class emancipation, the new national culture which is released by a successful struggle will be different from the national cultures of the past. The resources of national culture will be used in the expression of internationalist working-class sentiments. To the great work of the Soviets in raising the material and cultural level of the peoples of the East the writer pays due tribute. He also draws attention to the fight which is being conducted, in the ranks of

the Russian Communists themselves, against all pan-Russian tendencies, that is, against all tendencies to return to the old imperialist assumption of the supremacy or superiority of the Russian race.

P. A. SLOAN

The New Survey of London Life and Labour: Volumes III and IV: Survey of Social Conditions. I.—Eastern Area and Eastern Area Maps. (London: P. S. KING & SON, LTD. 1932. Pp. xvi + 475, and six Maps. 17*s.* 6*d.* net each.)

"IT is satisfactory to find that the level of poverty in East London is now only about one-third as high as in Charles Booth's time. It is much less satisfactory to learn that, in spite of this shrinkage, there are still more than a quarter of a million persons below the poverty line. When we consider how low and bare is the minimum of subsistence of the Booth poverty line, it is impossible to rest content with a condition of things under which one in ten in the Eastern Survey Area are living below this level. If the great progress towards extinction of poverty is matter for sincere congratulation and encouragement, the magnitude and gravity of what still remains give no ground for facile complacence, but rather for disquiet and searching of heart."

Thus, the Director of the Survey sums up the position. The picture is one of great and real progress, to which among other things the Social Services and the Trade Boards Acts have immensely contributed. But the basis for calculating the poverty line is that of Booth and Rowntree, which covers only the bare necessaries of physical existence, so that any reduction of income below this level involves serious and severe hardship. "Poverty means deprivation of the barest necessaries of life. Many who are not 'poor' according to this severe standard lead narrow, dull and penurious lives." Moreover, improvements in London have certainly been above the level of the whole country, owing to the relative advance in its economic position since the Booth Survey. Nevertheless, the improvement, when all allowances have been made, is immense; and this specific study of the extent and causes of poverty fully bears out the favourable conclusions reached in the earlier volumes of the Survey.

The present volume inaugurates that part of the Inquiry which corresponds to the Poverty Series of Booth's *Life and Labour*. It only covers a part of the area under review, and the answer to many questions has to be left to a later volume. But it has a special interest, as including the districts in which most of

the problems of poverty were in Booth's day, and still are, most acute, and in which Booth's Inquiry was most detailed and complete; and in them the comparison with the conditions of forty years ago can be made most comprehensive. The area covered, indeed, is much wider than "Charles Booth's East London," as it includes also the eastern boroughs of South London, and six boroughs to the north of the river outside the county boundaries. These last, except West Ham, are more well-to-do than the eastern boroughs of the County of London. The population covered by the present volume totals nearly two and a half millions, whilst the present population of Charles Booth's East London is 852,000. The extension of the area raises certain difficulties regarding the proper basis of comparison. "There is room," says the Survey, "for difference of opinion whether the best basis of comparison is between conditions in the identical area investigated by Charles Booth, or, in view of the eastward trend of working-class population, it is sounder to compare conditions in Booth's East London with the whole of the New Survey area north of the Thames." The latter basis, by adding relatively well-to-do areas, is apt to over-estimate, the former, owing to the migration outwards of the middle classes and of the more prosperous working classes, to under-estimate, the improvement; and the Survey is very helpful in giving estimates on both bases. Thus, on the first method the decline in the percentage of poverty is from 35 to 15 (7 to 3), on the second from 34 to 12 (nearly 3 to 1). In either case, as the Survey emphasises, the improvement is very large.

The volume is mainly the work of Sir Hubert Llewellyn Smith, Director of the Survey, and Professor Bowley. It combines a double statistical inquiry into the extent of poverty, with detailed treatment of its more prominent causes, and chapters on special problems—on the Homeless Poor, on Street Trading, contributed by Mr. S. K. Ruck, and on the Hop-pickers' Migration, in which Messrs. P. G. Nash and M. I. Michaels collaborate with the Director. The examination of poverty consists of an intensive "House Sample Analysis" (Professor Bowley) into 12,000 working-class households, and an extensive Street Survey (the Director), based primarily on examination of the conditions in families with school-children in all streets and sections of streets through the area, a method closely resembling that of Booth. Each method has its definite advantages and they complement each other. The results yield a quite remarkable correspondence, the percentage of poverty among the working-class population, with the

middle classes excluded, being 13·5 in the Street Survey (12 if the middle classes are included in the total population), and 13 in the House Sample. "The predominant impression," writes the Director, "is one of wonder at the comparatively close approximation and consistency of the two sets of results."

The inquiries have been conducted, and their conclusions presented, with great thoroughness and ability and with a wealth of statistics which are valuable not only for the purposes of the Survey, but for investigations in other fields. Some of the chapters are not for every reader, owing to the needs of a full statistical presentation. The methods adopted are admirably explained, and there is a most interesting comparison of the classification of the population now adopted with that of Charles Booth. One illustration of the decrease in poverty is seen here in the substitution for Booth's classes B, C and D (the "very poor" and the "poor") of a single class, P (Poverty). Where the authors have a free hand, their presentation is most readable and interesting.

The "standard of minimum needs marking the poverty line" is made as fully comparable as possible with Booth's, the chief alteration being an addition of 1*s*. 4*d*. per week for compulsory insurance, not existent in his day. The 1929 equivalent of his 21*s*. per week for a family of moderate size is placed at 38*s*. to 40*s*., inclusive of insurance. But the rise in standards since 1890 renders a provision, limited as this is to the bare necessaries of life, inadequate to modern ideas of what constitutes a tolerable minimum; and the Survey suggests alternative bases of comparison, such as the normal income of unskilled workers. The difference may be illustrated by the case of an old-age pensioner living alone. His needs, exclusive of rent, are estimated at 7*s*. 6*d*. per week on a standard based on the poverty line, whereas the London Public Assistance Committee's scale is 10*s*. or 11*s*. per week. A most valuable distinction is made between "static" and "dynamical" poverty, emphasising that the worst evils of poverty result less from a low standard of living than from decline in accustomed standards. "The lives of the poor, who have always been poor, are not necessarily unhappy, though hard, narrow, and stunted . . . for poverty so extreme as to cause acute physical distress is rare" (static poverty). But "the process of economic degradation" (dynamical poverty) "by which those who have known better things sink into poverty and suffer deprivation of comforts, hitherto regarded as necessaries, is often acutely painful and the constant apprehension of such a fall may be even more

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distressing." The substitution of unemployment for low wages, as the main cause of poverty, indeed, has the disadvantage of involving a relative increase in dynamical poverty, though absolutely the amount of poverty caused by unemployment is less than in Charles Booth's day.

Not only is the amount of poverty much reduced, but "the statistics of family income make it clear that the majority of families have a considerable surplus above the minimum." Moreover, above the poverty line, there has been an increase in the proportion of families possessing the standards of skilled workers. In "Charles Booth's East London" the percentages of skilled and unskilled in 1929–30 were 40 and 36 respectively (46 and 33 in the whole Eastern Survey Area), compared with 14 and 42 in 1889–90. The middle classes remain steady at about 9 per cent., but their big migration outside the Survey boundaries makes this really equivalent to an increase.

Reduction in the amount of poverty is accompanied by its wider dispersion. "This process is certainly beneficial from a social point of view, since 'pockets' of poverty and degradation, such as are not infrequently found in places where free circulation is impeded by physical barriers, *e.g.* railway embankments, canals or gasworks, tend to perpetuate themselves by inbreeding and the contamination of environment." It might have been added that more scope is given to the mutual self-help of the poor, where poverty is not concentrated, but scattered among those in a better economic condition.

The special chapters on particular causes of poverty tell a similar story. Poverty among the aged, though they have increased from 40 to 73 per thousand, is less absolutely as well as relatively, thanks very largely to Old Age Pensions. Unemployment Insurance is preventing not only much actual want, but the anxiety of the breadwinner for his family. "The evidence goes to show that abuses are of comparatively minor importance, and the outstanding fact is that National Insurance and Pensions have stood between the people and a state of distress and suffering that is terrible to contemplate." The Survey adds that the right to benefit diminishes "the urge to find an immediate job of any kind and at any rate of wage," and thus gives the worker greater powers of waiting and bargaining; but "the abuse of this waiting power is exceptional and the bulk of the unemployed earnestly desire and actively seek re-employment." The recent Lancashire Industrial Survey makes a similar statement regarding the short-time cotton workers.

Even housing shows a measure of improvement. For whilst extreme overcrowding (more than three persons to a room) rose in the Eastern Survey Area between 1921 and 1931, overcrowding generally dropped from 25 per cent. to 21 per cent. and average density of population from 1·04 to 0·94 persons per room. Small though these beginnings may be, they "afford welcome evidence that some effect has already been produced by the post-war revival of house-building under the auspices of public authorities. The fact that so many plague spots of intense overcrowding remain is equally an indication that very much remains to be accomplished. . . . Housing is still the dominant social question in London."

The Map volume contains five Poverty Maps, a key Map to the Poverty Maps, and an Overcrowding Map. The latter, to which there does not seem to be a counterpart in the Booth Maps, has a special value, and is included because of the special conditions of to-day, which render overcrowding "less a symptom and measure of poverty than a separate, though cognate, social problem." For the lack of correlation between poverty and overcrowding is often marked, since housing has not kept pace with improvements in earnings. Reasons of expense have limited the adoption of a six-inch scale, to the two maps of the more crowded Inner, North-east and South-east Districts. A four-inch scale is adopted for the less thickly populated outer areas, and seems adequate for its purpose. The Map volume generally seems an admirable companion to a most important Survey.

N. B. DEARLE

The Labour Problem in the United States. By PROFESSOR E. E. CUMMINS (London: Macmillan. 1932. Pp. xiv + 857. 18*s*.)

IN his preface, Mr. Cummins describes his approach to the labour problem. He views it as the inevitable expression in the money economy of man's eternal effort to better his economic status. The wage-earner struggles with his employer, whom he finds barring his progress. The plan of the book is developed to illustrate and defend this point of view. It is written in six parts, the first of which describes briefly the origins of the wage-earning class in the capitalistic order. The four chapters in Part II elaborate the grievances of the wage-earner. Chapter I, describing the nature and various types of unemployment, includes a comprehensive account of the difficulties of measuring unemployment in America, the attempt of the Government to

minimise its extent, and the various efforts of interested persons and organisations to discover the true situation, with comparisons of the results obtained. The case for shorter hours and the relationship between industrial conditions and health are given in Chapters II and III respectively. The final chapter of this section, entitled "Income," describes the course of real wages during the last century, the relation between earnings and budgets and the distribution of wealth and income in the United States.

Parts III, IV and V, the major portion of the book, are a picture of the active struggle between employer and employed, with the State as a biased referee. After a skeleton history of early activities, the author arrays the opposed forces. Unionism, the only important expression of American labour, is thoroughly inspected. Since the industrial form was short-lived in the nineteenth century, and is virile, progressive but limited in the twentieth, the trade unions, united in the American Federation of Labour, occupy the larger part of the author's discussions in Part III. The various union types, their programmes and problems, are detailed vigorously and critically.

The American employer has joined battle with the union, adding varied and indirect weapons to the standard weapon of the lock-out. The injunction, the "yellow-dog" contract (abjuring membership in a union), company labour policies and organisations and the blacklist have played their part in the struggle with the employer. The author illustrates the position of the employer in an economy, which compels him to produce efficiently in terms of money costs, and his inevitable opposition to labour's efforts to procure a greater share of the national income. His opposition has, in a limited field, been indirect, taking the employee away from the union by the counter-attractions of profit-sharing and benefit plans.

The State has been quiescent. Enactments and legal interpretations and concepts lag far behind the rapidly changing institutions. Capitalist in sympathy and influenced by an obsolete individualism, it has limited and obscured the status of labour organisation, bewildering the latter with a peculiar division of legislative authority and jurisdictions. Part V—"The State"—is an inclusive account of the uncertain and passive attitude of the State to the labour problem.

Part VI is a conclusion to the theorem of the preface and the construction and argument of Parts I–V. The general position of unionism is defended, with criticisms of its lack of

adaptation to changing conditions. The helplessness of the individual employers is depicted with suggestions for a modification of their policies, and the limited and retarded activities of the State are contrasted with governmental actions in other nations.

The author, in describing the American labour problem, has limited the scope of his discussion to the evidence of conscious and deliberate class struggle. His point of view and the limits of space may explain this course, but the brevity of the treatment given to those labour problems not covered by a discussion of unionism cannot be excused on these grounds. The reader is left without any quantitative description of the labour problem. In his sub-section on the numerical strength of unionism, the author devotes a paragraph to the difficulty of estimating the extent of the working force, without indicating what this is. He refers to immigrant labour and the newer industries employing a large percentage of unskilled labour, but makes no estimate of the importance of these factors. The geographical and racial problems are almost completely ignored.

A similar treatment has been given to the periods of labour activity in the political field, the reform period of the 'forties and the movements of the 'sixties being discussed with a brevity necessitating a wide background of knowledge on the part of the reader. A short half-paragraph is devoted to the work of Henry George Evans and the agrarian movement, and a phrase dismisses the green-backers. The influence of Ira Steward on the eight-hour movement is ignored, and the conflict of opinions in the 'forties, illustrated in the writings of Horace Greeley, is given a passing reference.

Organised labour reached its peak of numerical strength in 1920, with a membership of slightly more than five millions, representing one-fifth of the working force. *The Labour Problem in America* discusses the remaining four-fifths only by references subsidiary to the main argument. The labour problem, as here presented, is limited by the author's purpose.

A. G. HEAKES

The Elements of Economics. By J. K. MEHTA. (London: Routledge & Sons, Ltd., 1932. Pp. xii + 280. 10*s*. 6*d*.)

PROFESSOR MEHTA has produced an interesting and original book. In his opinion economics is essentially a mathematical science, and some of its most important principles are not intelligible without the use of mathematical methods. Accordingly

he does not consign his curves and formulæ to footnotes, appendices or even to the end of chapters, but embodies them in each chapter of the text at an early stage of the discussion. The first ten chapters are devoted to an exhaustive description of diagrams of all kinds: the linear, areal and cubic methods, graphs and curves. Then he proceeds to deal, first with problems of Consumption, next with Production under the headings of Land, Labour and Mobility of Labour, Capital and Organisation, and finally with Exchange, Monopoly and Price Discrimination, ending somewhat abruptly with a single page on Dumping.

While claiming much for his method, Professor Mehta does not overstate his case. Thus he admits that utility curves possess no practical importance, since mental satisfaction can never be measured easily or accurately. His graphs are explained with a patient and detailed accuracy that will make them intelligible to the dullest intellect. The theory of Consumer's Rent is given a particularly happy illustration, but one might almost have expected him to point to the limitations involved by the fact that the various experiences of consumer's rent which a purchaser enjoys in respect of a number of separate purchases are possibly alternatives and not susceptible of indefinite addition. The treatment of Diminishing Returns is not quite so lucid as the rest of the exposition, and a good deal of discussion is devoted to a distinction between diminishing returns from agricultural land and from mines and quarries which could have been disposed of in a single sentence. Population problems are treated at some length, with a biological digression on the dangers of looking to environment to improve faulty stocks, which is probably newer to Indian than to British students. The originality of the book lies in the mathematical treatment adopted throughout, but the author is fully justified in claiming that useful matter may be found by any reader in all the chapters.

H. REYNARD

The Co-operative Movement in India. Its Relation to a Sound National Economy. By ELEANOR M. HOUGH, Ph.D. (London: P. S. King & Son. 1932. Pp. 340. 15*s*. net.)

IN an introduction to this well-documented book Sir Horace Plunkett tells how "a young American lady, passing through London on her way from India to the United States, called upon me. She told me that she had written a book upon 'The Co-operative Movement in India,' and that if I would write a brief introduction, she would be greatly obliged." Sir Horace says that

he set to work on the task of reading the book and simply could not put it down. Professor Kaji of the Sydenham College of Commerce, Bombay University, follows Sir Horace Plunkett's introduction with a foreword on the co-operative movement, in regard to which he is an authority.

The arrangement of the book is attractive. Miss Hough first describes India's present national economy. In a second chapter she gives the aims of the co-operative movement, and in a third a good description of the movement in India. She attempts an evaluation in the fourth chapter, and in the final one she deals with the potential contribution of the present movement. In an appendix she gives the Co-operative Societies Act, Act II of 1912, and in a second appendix useful statistical tables. The index unfortunately is incomplete. Sir Horace Plunkett, quoted from time to time throughout the book, has not even a place in it. The book is a lucid and competent summary of the present position, but it contains, to speak perfectly frankly, nothing original, no new light, and it does not really separate the big and vital issues of the movement from the minor points.

Miss Hough might have examined more closely the working out of the recommendations of the Maclagan Committee of 1914–15 and the strongly-worded Report of the Oakden Committee appointed by the United Provinces Government in 1925. The unsound system in the Central Provinces, which some years ago gave rise to almost a financial crisis in these Provinces, the steady increase in overdue loans in Madras and the stagnation of the movement in Burma, have been discussed by the Royal Commission on Agriculture in India in its Report of 1928. The working of the societies is unsatisfactory. Members of societies delay the repayment of loans even when able to pay, and office-holders refrain from taking action against defaulters. There is, too, always the hesitation to liquidate societies whose condition is beyond remedy. We know the causes, of which the chief are the lack of training and knowledge of co-operative principles, the fear on the part of office-holders of incurring unpopularity when action is taken against recalcitrants for overdue debts, and the lack of control on the part of members over their president and committee. We do not yet know how to get members of co-operative organisations to assume complete control of their societies. Educational effort in this direction might be far stronger than it is. How is it to be carried out? This and other matters, several of which are touched on by the Managing Governor of the Imperial Bank, deserved greater attention in Miss Hough's survey. I am convinced that the whole

future of the movement must depend on keen and alert non-official leadership. How far an expert staff would educate the people in co-operative principles is a matter for urgent consideration.

Miss Hough would agree that the key to the whole position is the primary village society. If it is not sound, how can the superstructure of unions, central banks, and the provincial bank continue to prosper? Soundness implies not merely carrying on business on sound lines, but that every member of the society must be intimately acquainted with each other and feel that they must all stand or fall together. In other words, the co-operative credit society must capitalise the honesty of the poor. Is this being done and, if not, how must it be carried out in detail? The President of the Conference desired the appointment of special recovery officers. It was never intended to recover overdue loans through the Government revenue agency. It is difficult to reconcile any such system of summary recovery of overdue loans through Government agency with real co-operative principles. Does the present exceptional trade depression demand exceptional measures in dealing with this problem? It is in search of guidance on such vital major issues of the movement as these that the real student of the subject will go for light.

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Business Statistics. (RIGGLEMAN and FRISBEE.) (McGraw Hill Co. 24*s.*)

Elements of Practical Statistics. (HARPER.) (Macmillan Co. of New York. 10*s.* 6*d.*)

AN Englishman, reading these and other American text-books on statistics, is likely to reach two conclusions together. On the one hand, the fact that so many and such comprehensive books on the subject are published in the U.S.A. does clearly indicate that there are very large numbers of students of the subject, working up to quite a high standard, and it is also clear that many people are interested in the matter of applying statistical methods to current business problems. In these respects America is certainly very far ahead of us. But at the same time I think it is fair to say that these books at any rate show very little of the original or constructive thinking which makes certain statistical works at once so interesting and so difficult. Perhaps some will say that it is more necessary at the present time to consolidate the ground that

has been won than to seek for new departures of thought. But I think myself that the difficulties encountered by the first great school of thought on this subject—the Harvard school—point to the conclusion that fundamental revolutionary changes of thought are yet required in the matter of applying statistical methods in economics.

But of course I do not wish to deny the need for dissemination of the knowledge already won, and I think that both business and economics in this country would be very great gainers if the practice and teaching of statistics were raised to the level of the U.S.A. Both these books are of a type that is not available in this country, and deserve to be widely read.

Business Statistics is a big and expensive volume, but it is worth the cost. It contains only an indispensable minimum of theory (and this really is very small indeed), and nearly the whole book is devoted to the practical problems of applying statistics in business. The reader is not expected to be a trained mathematician or a trained economist, while, on the other hand, the book gives much space to such humdrum but necessary matters as how to tabulate data from pay-rolls, how to prepare a statistical map, an investment analysis or a questionnaire. On many of the subjects covered in the book there is nothing very new to say, but the most interesting part of the book is the chapter entitled "Production and Labour Statistics." In this chapter we get a very close insight into the detailed statistical control of productive processes, and of the use of statistical machinery. The last chapter, "Executive Control and Management," is rather disappointing, because it mainly consists of quotations from an article written by Col. Rorty in 1923. This article has many sensible things to say about "statistical control" in business, but it is rather abstract and one feels that there are not yet many real examples which can be quoted from.

Elements of Practical Statistics is quite a different type of book. It is an elementary text-book, and a very good one. The author is an agricultural economist, but the book shows no bias in that or any direction, and in spite of one serious mistake (the formula for the mode on p. 114) it may be confidently recommended to anyone beginning the subject and wanting a short and very clear exposition of elementary theory.

There is a useful chapter on graphical work, and some moderately advanced material on multiple correlation, a matter of especial interest to agricultural economists. But naturally there are a great many branches of the subject which it does not touch,

and it should be regarded as a forerunner to the more advanced text-books. It may be said, however, to contain the necessary minimum, from the point of view of the reader whose primary interest is in applied statistics, of the mathematical theory.

C. G. CLARK

Economics in Primitive Communities. By RICHARD THURNWALD. (Oxford University Press. Pp. 314. 5*s.*)

THE subject-matter of economics is human behaviour, and it is not limited to the behaviour of human beings of any particular times or places or cultural conditions. The economist may choose to concentrate his attention upon the community in which he lives and other communities closely resembling it. But in so doing he is restricting his outlook to a part only of his subject. And even those economists who so limit themselves feel the need to institute comparisons with states of society as different as possible from their own, in order to bring out the significance of their institutions and practices.

For this purpose some have been tempted to invent an ideal natural man, a Robinson Crusoe or a simple savage, by way of contrast with civilised people. Such abstractions may serve a purpose, and may throw light on the rational basis of economic institutions. But they fail to link up those institutions with their human origin; they fail to explain that great tangle of irrationality which still pervades civilised society; they fail to interpret history, on which we have to depend for much of the evidence of human behaviour.

Economists ought therefore to be grateful to any anthropologist who will help them to substitute a concrete picture of primitive man and his institutions for such abstractions. And they will find that Professor Thurnwald's book is well designed to meet this need.

The book is mainly a compilation; that is to say, the author has collected together and classified a great mass of facts, of which the common characteristic is that they illustrate the economic activities of communities (whether of the present day or of the past) of the kind that anthropologists study.

If the facts are to be faithfully recorded, the descriptions of them must not diverge too far from the actual words of those who originally observed them. The result is that the arrangement of the book is inevitably somewhat confused. There is overlapping among the topics successively dealt with, because the facts that properly belong to one heading are often narrated in a context that belongs to another.

This fault does not materially impair the value of the book, but it necessitates careful reading, and frequent cross references (which a fuller index would have facilitated) are desirable.

The book supplies the economist with a wealth of material. It brings out the intimate dependence of the social structure of primitive communities upon the type of economic activity which provides their subsistence. It traces the growth of the ideas of authority and status both in ancient times and among uncivilised communities of the present day, and makes clear the relation of those ideas to the problem of distribution.

Particularly interesting are the short chapters on "Barter," "Trade," "The Market" and "Purchase," and also the dozen pages on "Symbols of Value and Money." (We are led, however, to feel some distrust of the author's knowledge of currency when he describes the Maria Theresa dollar as of "face value 5·5 gold francs.")

R. G. HAWTREY

Nottinghamshire in the Eighteenth Century. A Study of Life and Labour under the Squirearchy. By J. D. CHAMBERS. (P. S. King & Son. 1932. Pp. xi + 377. 15*s*.)

THE growth of an interest in local history is a very satisfactory symptom of the increased interest in economic history, and Mr. Chambers in his preface outlines the object of such studies as his own in expressing the hope that "the specialist student of economic history will find something of interest in a study that enables generally accepted views to be seen in their application to a particular case," while the teacher may gain "some help in bridging the gap between the village or county and the national life." The book is very successful in fulfilling both these aims. It is perhaps a pity that the title insists upon such a limited period, since, in fact, Mr. Chambers has refused to be bound by it; and, although it may be rather confusing to find that the eighteenth century includes most of the seventeenth and a considerable number of excursions into the nineteenth, he has been enabled to give a much more comprehensible account of the social framework of the county than if he had followed his title exactly.

The book is divided into three sections, the first and last of which deal with the rise of the Squirearchy and with social life under its sway, while the second describes the development of industry and agriculture. The chapters on agriculture are particularly interesting, and Mr. Tate of Sutton Bonington has

supplied an invaluable appendix giving a list of all the parishes of the county with their enclosure history. By means of a minute analysis of this information, Mr. Chambers is able to present a very clear picture of the factors making for and against enclosure. He finds that between 1700 and 1800 a much larger part of the county was enclosed by agreement than by Act of Parliament (41 per cent. against 24·8 per cent. according to an estimate on p. 149), and he shows that non-parliamentary enclosure occurred in villages where the small owner had already almost disappeared, whereas the parliamentary enclosures were those where opposition was expected. The results of his investigations thus confirm those recently published by Mr. Davies in showing that, so far from the disappearance of the small landowner being a result of enclosure, it had taken place in many localities in Nottinghamshire before enclosure, and was indeed an antecedent condition of it. Mr. Chambers also supplies one or two very interesting examples of communal action by villagers in regard to the management of their common fields, and proves that the Act of 1773, which allowed changes in rotation or crops to be made by a majority of three quarters of the occupiers instead of requiring unanimity, was not such a dead letter as has been thought. These instances lead him to the conclusion (p. 175) that if the State had made a serious attempt to apply improvements in agricultural methods to the open field system "the attempt would not have been foredoomed to failure, at least in the grain-growing districts."

The section devoted to industry is not so comprehensive as that on agriculture. Mr. Chambers can find no material for attempting a history of coal mining, the third industry in importance in the county in the eighteenth century, and believes that no account of its development before 1840 is possible. This is the more to be regretted in that he has a mining tradition in his own family; but the fact that this is a tradition of primitive methods persisting late into the nineteenth century has perhaps led him to generalise rather too freely about the absence of machinery, since steam winches and other hauling machinery are said by a contemporary author to have been in use in some Nottinghamshire collieries in 1810. Nor does Mr. Chambers find room for any account of the cotton spinning mills which spread over the county in the last twenty years of the eighteenth century and disappeared in the first forty of the nineteenth. It would be interesting to know what part Nottingham, with its population of highly-skilled frame-makers familiar with one of

the most intricate machines known prior to the nineteenth century, took in the development of textile machinery; but one most conclude that Mr. Chambers has not been more fortunate than previous investigators in finding information on these points. He concentrates on the characteristic industry of the county, framework knitting, and, though he does not here add much to our knowledge, his description of this extremely interesting trade, with its struggle against the Company, its early and remarkably successful Trade Unionism and the highly developed character of its capitalism based on the domestic system, is full and competent. Perhaps he relies a little too much on Gravenor Henson as an authority for the early eighteenth century. It is true that Henson is the chief source for the history of the industry, and he was a careful, and, as far as he was able, a truthful, recorder, but he was not born until 1785, and he had no reliable means of checking the traditions handed down to him by older members of the trade; moreover, he wrote with a strong bias in favour of the Company, which he regarded as a protector of the workman. There is a misprint in the passage quoted from him (p. 96) about attempts at cotton-spinning machinery in Nottingham previous to Arkwright; the name written "Jones" should be "James," a point of some importance, since it does not seem impossible that the story refers to the Thomas James who was Hargreaves' partner. Again, it is perhaps a little misleading to use evidence from Godalming to illustrate conditions in Nottinghamshire; the industry in Surrey was a dying one, and it does not seem quite clear that conditions in the Midlands, though often very bad, were ever quite as bad as in the South. But these are very minor criticisms of a valuable book which admirably fulfils its author's intention. Special mention is due to the last chapter, which relates the culture of the period to its economic and social life. This is an attempt which is not made as often as it might be, and the results of it here are remarkably illuminating. They suggest that what was really wrong with the eighteenth century was that it had relegated education, in the sense of the development of the mind for its own sake, to the category of polite accomplishments reserved for the wealthy.

J. DE L. MANN

The Economics of Welfare. By A. C. PIGOU. Fourth edition, 1932. (Macmillan. Pp. 837. 30*s.*)

IN this new edition, the principal changes affect the chapters on "What is meant by keeping Capital intact," "The Measure-

ment of Changes in the Size of the National Dividend," "Increasing and Decreasing Supply Price," "Monopolistic Competition," "The Distribution of Labour among Occupations and Places," and "Interference to raise Wages where they are Unfair."

The Gold Standard. By R. G. HAWTREY. Third edition. (Longmans. Pp. 248. 5*s.*)

IN the Preface to this new edition, the author says: "The interval that has passed (since 1931) has been fertile both of events and of controversies. I have endeavoured to show how the doctrines expounded in the earlier part of the book should be applied to interpret the events and solve the controversies. That task has necessitated the expansion of the single additional chapter which sufficed in 1931 into three chapters."

Great Britain from Adam Smith to the Present Day. By C. R. FAY. Third edition. (Longmans. Pp. 482. 12*s.* 6*d.*)

THIS new edition includes a brief Supplement on "A Decade of Rationalisation, 1922–32," and a summary of new literature on the period.

NOTES AND MEMORANDA

The Irish Free State Finances

(1) In the Economic Journal of June 1928 was published an inquiry into the orthodoxy of the Free State Government's financial administration from 1922 to 1927. It now requires correction in several minor points. An accounting monstrosity, whereby sums voted for Property Losses Compensation were appropriated in aid of the vote for Public Works and Buildings in 1925–6–7, was overlooked. The final audited expenditure for 1926–7 is also now available. Some corrections of principle appear desirable. Once net borrowing has ceased, the reduction of the principal debt outstanding is a proper charge against revenue; but, so long as the volume of principal debt outstanding is steadily increasing, sinking fund appropriations produce only a futile series of cross-entries, the net effect of which (if the appropriations are effectively met out of revenue) is that some part of the "extraordinary" expenditure is covered by revenue and new borrowing correspondingly reduced: this might as well be shown openly. The annually accruing interest on Savings Certificates is a charge that ought to have been, but was not, provided for out of current income. For "ordinary" Army expenditure, the figure of £1,750,000 was then adopted; £1,250,000 seems more plausible now. The corrected table of comparison of receipts and expenditure is combined with the corresponding table for the period 1927–32 at the end of this article.

(2) As before, each year shows an apparent deficit:

Year.	Revenue.	Expenditure.	Deficit.
	£	£	£
1927–28	24,336,100	27,871,600	3,535,500
1928–29	24,597,200	28,265,900	3,668,700
1929–30	24,641,900	27,154,000	2,511,100
1930–31	24,497,200	26,796,300	2,299,100
1931–32	25,654,600	27,301,100 [1]	1,646,500

[1] Exchequer issues.

(3) But the gross expenditure includes temporary advances and issues to meet capital expenditure to the Unemployment Insurance Fund, the Shannon Fund, the Electricity Supply Board (under the Electricity (Supply) Acts, 1927 to 1931), the

vote for the Post Office (under the Telephone Capital Acts, 1924 to 1931), the Road Fund (under the Road Fund (Advances) Act, 1926), for the provision of token coinage (under the Coinage Act, 1926) and for redemption of existing debt. Advances to the Local Loans Fund, to Agricultural Credit Societies, to the Dairy Disposals Board for the purchase of creameries and several smaller miscellaneous advances are charged to Supply Service votes. The amounts have been:

Year.	Advances.		Debt Redemption.	Total.
	"Other Issues."	"Supply Services."		
	£	£	£	£
1927–28	1,939,600	327,600	664,300	2,931,500
1928–29	2,446,600	580,600	617,300	3,644,500
1929–30	2,185,800	512,000	584,500	3,282,300
1930–31	1,379,200	653,800	1,230,800	3,233,800
1931–32	1,110,500	650,000 [1]	655,300	2,415,800

[1] £80,000 of this total is estimated, in the absence of the Appropriation Accounts for this year.

(4) The extraordinary expenditures have continued, but on a diminishing scale:

Year.	Compensation.		Restoration of Public Buildings.	Excess Cost of the Army.	Total.
	Personal Injuries.	Property Losses.			
	£	£	£	£	
1927–28	4,500	449,800	189,400	717,900	1,361,600
1928–29	3,300	257,100	158,400	510,600	929,400
1929–30	3,600	204,200	102,200	9,500	319,500
1930–31	2,700	74,600	73,700	nil	151,000
1931–32	2,400 [1]	170,400 [1]		nil	172,800 [1]

[1] Exchequer issues.

(5) To the ordinary expenditure must be added sums to provide for the annually accruing interest on Savings Certificates outstanding. The Finance Act, 1929, made provision for the annual payment of sums into an Interest Charge Equalisation Account, and the amounts here listed are the net balance remaining after deduction of such provision:

Year .	1927–28	1928–29	1929–30	1930–31	1931–32
Amount	£131,500	£176,000	Cr. 61,100	Cr. 10,500	Cr. 13,300

(6) The gross revenue includes the proceeds of the destruction of capital assets. Temporary advances have been repaid by the Unemployment Insurance Fund, the Road Fund, under the Coinage Act, by Co-operative Creamery Societies, Agricultural

Credit Societies, the National City Bank and numerous other borrowers, and the proceeds brought into account as "other receipts," miscellaneous revenue or appropriations in aid of votes. The process of winding up Departmental funds and transferring their liabilities to Supply Service votes has been continued. The funds abolished were: the Intermediate Education, Endowment, Lunacy, Forestry, Fines and Fees, National Monuments, District Court Clerks' and Congested Districts Board's Funds.

Several other minor assets were also realised. The totals collected from these "extraordinary receipts" have been:

Year.	Repayment of Advances.		Destruction of Assets.	Total.
	"Other Receipts."	"Supply Services."		
	£	£	£	£
1927–28	350,000	60,300	473,400	883,700
1928–29	345,200	81,000	235,900	662,100
1929–30	418,500	309,900	30,300	758,700
1930–31	339,700	89,800	53,100	482,600
1931–32	80,600	210,600 [1]	73,800	365,000

[1] Contains an estimated figure of £50,000 for the loans whose repayment is appropriated in aid of votes.

(7) A summarisation of these corrections gives the following table:

Year.	Ordinary.		Extraordinary.		Net New Borrowing.
	Receipts.	Expenditure.	Receipts.	Expenditure.	
	£	£	£	£	£
1922–23	25,419,900	21,003,200	—	7,532,400	3,115,700
1923–24	29,003,200	26,307,200	2,171,600	14,272,000	9,404,400
1924–25	26,183,700	24,043,500	771,400	5,464,400	2,552,800
1925–26	24,465,400	23,441,200	1,088,700	4,433,500	2,320,600
1926–27	23,892,200	22,405,800	1,382,500	5,739,700	2,870,800
1927–28	23,452,400	23,710,000	883,700	4,293,100	3,667,000
1928–29	23,935,100	23,868,000	662,100	4,573,900	3,844,700
1929–30	23,883,200	23,491,100	758,700	3,601,800	2,451,000
1930–31	24,014,600	23,401,000	482,600	3,384,800	2,288,600
1931–32	25,289,600	24,725,800	365,000	2,588,600	1,659,800

With the exception of a trifling deficit in 1927–28, the capacity to cover ordinary expenditure out of ordinary revenue was maintained throughout the decennium. Surpluses of current revenue totalled £13,142,500, extraordinary revenue £8,566,300, leaving capital and extraordinary expenditures to the amount of £34,775,400 to be met by borrowing.

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Marx's Theory of Money

Reference is seldom made to Marx's theory of money, but it has distinctive features, and its presentation still makes stimulating reading, for it deals with questions that retain their actuality. The most complete statement of the pure theory is in the *Critique of Political Economy*; there is a summary re-statement in the first volume of *Capital*, and the other volumes contain extremely interesting applications. The value of money is determined by the quantity of socially necessary labour-time embodied in its production. It makes no difference to the argument, and it may secure a better hearing for Marx, if we say he means that the value of money is measured by its cost of production. The term money must be restricted to "hard" money: bullion, standard coins and convertible notes. Ricardo, according to Marx, had taught that the value of money is determined by the labour-time needed for its production, but had added the qualification that this applied only when the quantity of money stood in the right proportion to the prices and quantities of commodities to be exchanged. Marx rejects this qualification. He denies absolutely that the price-level depends on the quantity of money in circulation; he maintains, on the contrary, that the quantity of money in circulation depends on the price-level, and is raised or lowered as prices rise or fall. The quantity of money needed depends on its velocity, on the volume of transactions, and on the "value" of money in the sense of the amount of socially necessary labour-time embodied in its production.

If the quantity of money in circulation depends on the price-level, how is the quantity regulated, what makes it expand and contract according to need? In answer, Marx refers to hoarding and dishoarding—factors more important in the world than we in a country like England are apt to suppose. In an advanced capitalistic country, hoarding tends to become very small, but in primitive societies a hoard of money is the normal form of surplus wealth, wealth that is saved instead of being consumed. The opportunity or the will to invest, or both, are lacking. The primitive condition still obtains over a large part of the world. India is a sink for the precious metals, China also is a considerable hoarder, and it is generally believed that the peasantries of countries that are our near neighbours keep their savings in stockings.

Hoards do not take only the form of hidden treasure. The money material may be withdrawn from circulation by being

turned into objects of luxury, and very often these objects have comparatively little value added to them by workmanship and they can easily be changed into metallic money. Marx insists that the amount of gold used as objects of luxury is large. He quotes W. Jacob as saying that there was twice as much gold and silver in objects of luxury as in the form of money in England in 1829. Marx also argues that it is the increase of wealth, not the fall in value of the precious metals, that causes an increased use in objects of luxury. For the tendency to hoard there are impelling reasons, psychological and economic. "Money is not only *an* object of the passion for riches; it is *the* object of that passion. The latter is essentially *auri sacra fames*." [1] It would be senseless to heap up surplus amounts of other use-values, but nobody can accumulate too much money, the one commodity that has permanent and universal exchangeability, whose use value consists in its exchange value. Not only individuals, from peasants to kings, have their hoards, but throughout history there have been State hoards of the precious metals, the universal money. Whatever economic loss may be the result of saving-without-investment, there are intelligible reasons for it from the standpoint of the hoarder.

Marx points out, as others have done, that hoarding increases in times of disturbance and uncertainty. In such times there is apt to be saving-without-investment or, as Marx called it, interruption of circulation, for a twofold reason; because both production and consumption are lessened. Reserves are not hoards; reserves are kept to meet payments that may become due. Reserves are within circulation, hoards are outside it. The reason why hoarding is normally at a minimum under capitalism is that it prevents the conversion of money into capital and the production of surplus-value.

The doctrine that the quantity of money in circulation depends on prices is not upset by the fact that new money may come from the mines, and an addition from this source may well have increased prices as a sequel. For though the price-level does not depend on the quantity of money, it does depend on its value—that is to say, on the amount of socially necessary labour-time embodied in the production of gold. An increased output from the mines may be due to a fall in its value, or, what is the same thing, an increased productivity of labour in gold-mining. By the value of money Marx always means the amount of labour-time socially necessary for its production. If the cost of pro-

[1] *Critique*, p. 176.

ducing gold falls, its value falls, and more gold has to be given for other commodities which have not fallen in value, *i.e.* cost of production. The value of money can thus rise when general prices are rising; this would occur when there was an increase in the production costs of all commodities, the money commodity included.

Money is a measure of value, and it can be this only if it has value itself, value being the congelation in a commodity of socially necessary labour-time. Tokens can be used instead of real money, but tokens are not the measure of value, and no change in prices follows the use of tokens as long as the tokens merely replace gold in circulation. If the tokens are in excess of the gold that would circulate, they become depreciated in terms of gold, and prices in tokens will rise. There can be a *forced* currency of tokens, and then the value of tokens, in the sense of their purchasing power, does depend on their quantity. The following characteristic passage from Marx may be quoted:

> "While gold circulates because it has value, paper has value because it circulates. While with a given exchange value of commodities the quantity of gold in circulation depends upon its value, the value of paper depends on its own value in circulation. While the quantity of gold in circulation rises or falls with the rise or fall of prices of commodities, the prices of commodities seem to rise or fall with the change in the quantity of paper in circulation. While the circulation of commodities can absorb only a definite quantity of gold coin and as a result of that the alternating contraction and expansion of the currency appears as a necessary law, paper money seems to enter circulation in any desired amount." [1]

Marx considers the possibility of a forced circulation of gold, in which case the actual quantity of gold in circulation might be above the normal quantity as determined by the value of gold. Prices would then rise, but there would be a tendency for gold to escape from the area of forced circulation and, moreover, there would be a tendency for the production of gold to decline so that in time the normal quantity would be restored.

The Marxist theory gives an explanation why the United States and France, the receivers of surplus gold, have become hoarders. These countries did not desire to convert the gold into commodities for consumption, and they did not see safe

[1] *Critique*, p. 160.

openings for its conversion into capital, *i.e.* commodities yielding surplus value. Had they forced into circulation a greater quantity of gold than was needed at the existing price-levels, they would soon have lost the gold. They might have exchanged the gold for other use-values, but, as in the case of all hoarding, they preferred to keep the universal exchange value. Similarly, the " pumping of money into the system " means nothing if it merely replaces gold by tokens.

Credit acts as a substitute for money, but it is by no means as good as money, as is shown during a crisis, when everybody demands money. The demand for gold in a crisis is crazy, but it is a necessary consequence of the breakdowns of credit that necessarily occur from the working of the capitalist system. The credit system is the main lever of over-production and over-speculation because it strains the productivity of industry, elastic in its nature, to its extreme limits. The monetary system, says Marx, is essentially Catholic, the credit system Protestant. He appears to be thinking of Lutheran justification by faith. He adds that the credit system does not emancipate itself from the basis of the monetary system, any more than Protestantism emancipates itself from the foundations of Catholicism.

HENRY SOMERVILLE

A FURTHER NOTE ON DECREASING COSTS

INTERESTING additions to the theory of decreasing costs have been made in recent numbers of the ECONOMIC JOURNAL by Mrs. Robinson [1] and Mr. Shove; [2] complete precision in this field is almost within our grasp; certain obscurities, however, remain to be cleared up. In particular Mr. Shove's criticism [3] of Mrs. Robinson has brought to light some difficulties connected with her conception of a normal rate of profit.

She defines a normal rate as that which neither attracts new nor drives out old competitors.[4] In the case of imperfect competition, however, it appears that this definition does not specify a particular rate, but only a range of rates.

If there were a unique rate such that any rate in excess of it attracted new competitors and any rate below it caused defection,

[1] ECONOMIC JOURNAL, December 1932.

[2] *Ibid.*, March 1933.

[3] *Loc. cit.*, p. 119.

[4] " If profits are more than normal, new firms will tend to enter the industry. . . . If profits are less than normal, firms will tend to leave the industry."—Robinson, *loc. cit.*, p. 546.

we should surely be in the sphere of perfect competition. As Mr. Shove observes, Mrs. Robinson's treatment suggests free entry into the trade, and free entry is "difficult to reconcile with the notion of an imperfect market." Mrs. Robinson really does no more than define limits within which any rate may be considered as normal.

Nevertheless, in order to use an apparatus of cost curves effectively and to give any meaning to the expression, decreasing costs, it is necessary to specify a single rate of profit. It is this rate which has to be used in determining the supplementary cost due to a given capital installation.

Within the range of possible equilibrium rates which Mrs. Robinson's definition yields, one particular rate stands out with a marked claim to be considered *the* normal rate. This is the rate just sufficient to induce *the firm itself* to embark on additional fixed capital expenditure. It is likely to be lower than the rate required to attract new firms into the business and higher than the rate at which firms tend to fall out. In a period long enough to allow a firm to adjust its fixed equipment to the prospective demand, the rate of return to the marginal installation of fixed equipment tends to be equal to what the firm considers adequate. This rate of profit should be regarded as the supply price of fixed equipment for the firm, and should be used in computing its supplementary costs schedule.

It remains to consider how this definition of normal profit in imperfect competition affects the theory of equilibrium. In a short-period equilibrium, it will be remembered, marginal cost of production is equal to marginal revenue; [1] price and average cost may have different values, but, if they have a common value, the price and average cost curves must be tangential at the equilibrium point. What of the longer period? First, profit on fixed equipment must lie within the limits postulated by Mrs. Robinson. This condition need concern us no further. The second condition may be expressed in two ways which come to the same thing. The firm will use such an amount of fixed equipment that it produces the equilibrium output in the cheapest way (charging fixed equipment with a normal rate of profit as defined above). Put otherwise, the marginal revenue due to the marginal outlay on fixed equipment yields a normal rate of profit upon it.

[1] Mrs. Robinson has re-christened my somewhat clumsy "increment of aggregate demand curve" with the more elegant name, "marginal revenue curve." Cf. ECONOMIC JOURNAL, June 1930, p. 238, and December 1932, p. 546.

I showed in an earlier article [1] that a firm's cost of production may be represented by a family of parabolas, each member of the family representing the cost of producing different amounts of output from a given amount of fixed equipment. The cheapest mode of producing any particular amount of output, x_r, is by using that amount of fixed equipment the parabola of which has the lowest ordinate of all the parabolas at x_r. Since in a long period a firm will tend to produce in the cheapest manner, the long-period cost curve is the envelope of the family.

In constructing each parabola, a normal rate of profit, as defined above, should be assumed. For it is precisely this rate of profit which determines the action of a firm, when deciding whether to extend (or reconstruct) its plant or not. It will regard extension of plant as the cheaper way of producing an increment Δx, when the extra prime cost required to produce Δx without extra plant exceeds that required to do so with the extra plant by anything more than an amount yielding a normal rate of profit, as defined, on the extra plant.[2]

It follows that the second mode of stating the second condition for long-period equilibrium set out above comes to the same thing as the first mode. In long-period equilibrium the firm will be earning on its marginal outlay on fixed plant a rate of return which it regards as justifying fixed capital expenditure.

In long-period equilibrium the long-period cost curve and the curve showing total cost per unit of producing from the particular plant in use are tangential at the point of equilibrium output (*vid. sup.*). Are these curves also tangential to the demand curve?

If they are, the price is equal to the total cost of production per unit, which means, that it yields an average rate of profit on the fixed plant that is equal to the rate used in constructing the cost curve, *i.e.* that the average rate of profit is equal to the normal and to the marginal rate. If, as Mrs. Robinson implies, the firm must earn a unique normal rate of profit on all its fixed equipment in long-period equilibrium, then her conclusion follows that the total cost per unit curve, which embodies this rate, must be tangential to the demand curve, and, since that has a negative gradient in an imperfect market, an equilibrium firm working for an imperfect market must show decreasing costs.[3] It is true that

[1] ECONOMIC JOURNAL, December 1931, p. 575.

[2] If the next biggest size of plant can only be achieved, not by the addition of an extra piece, but by radical reconstruction, the period under consideration is longer.

[3] Cf. Robinson, *loc. cit.*, p. 549.

in equilibrium a firm's rate of profit on all its fixed equipment must be normal in her sense. It is not true that there is a unique normal rate of profit in this sense. Nor is it true that a firm must earn a normal rate of profit on all its fixed equipment in the unique sense defined above. It must earn a normal rate so defined on its marginal fixed equipment. If the price exceeds the total cost per unit, the average rate of profit on the firm's fixed equipment will exceed the marginal which is equal to the normal rate, and if the price falls short of the total cost per unit the average rate of profit in the firm will fall short of its marginal which is also its normal rate.

It seems to be true, therefore, that it is *not* a necessary condition of long-period equilibrium that the price should be equal to the total average cost per unit. If the price is greater than the total average cost per unit, the gradient of the demand curve has a greater negative value than that of the total cost per unit curve; [1] in this condition, therefore, the long-period cost curve may not have a negative gradient at all. If the price is equal to or less than the total average cost per unit, the long-period cost curve must have a negative gradient. It seems to follow from this that after a period of prolonged depression when firms are tending to reach a long-period equilibrium at a low level of output, prices and profits, long-period decreasing costs are more than usually likely to be present in firms that are in imperfect competition.

This analysis confirms the view of an earlier article,[2] that an equilibrium firm working in conditions of imperfect competition *may* be subject to decreasing long- and short-period costs in equilibrium. It is in conflict with the further contention that such a firm *must* be subject to decreasing costs.

Mrs. Robinson's theorem is consistent with a possible definition of normal profit, but not with that given above. The definition I have chosen may be defended on the grounds, first, that it is natural and conformable with general economic usage, and secondly, that the cost curve which it entails is the most appropriate one, if cost analysis is undertaken with an eye to supply price analysis. Mrs. Robinson has shown that changes of supply price in imperfect competition, depend on the nature of changes in demand. The simplest kind of change in demand to suppose seems to be that the particular demand curve, as it shifts its

[1] Since the marginal revenue curve and the marginal cost curve intersect at the point of equilibrium output, x_r, that average curve must have the greater negative gradient which has the greater value at x_r. Cf. the formula on p. 570, ECONOMIC JOURNAL, December 1931.

[2] ECONOMIC JOURNAL, December 1931.

position, retains a constant elasticity for each value of y. In the face of such changes the supply price curve and the cost curve constructed in the manner suggested above both have a negative gradient, both have a positive gradient or are both horizontal.[1]

R. F. HARROD

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OFFICIAL PAPERS

Industrial Surveys of Merseyside, the Lancashire Area (excluding Merseyside), the North-East Coast Area, the South-West of Scotland Area, and South Wales, made for the Board of Trade by the Universities of Liverpool and Manchester, the Armstrong College, Newcastle-on-Tyne, the University of Glasgow and the University College of South Wales and Monmouthshire. (London: H.M.S.O. Prices 2*s*. 6*d*., 6*s*., 7*s*. 6*d*., 4*s*. 6*d*. and 3*s*. 6*d*. net.)

THIS excellent series of studies aimed at securing a definite and reasoned picture of the industrial position and prospects in what are called the "depressed areas," and the reports are thus essentially studies of employment and of the demand and supply of labour. Their range is consequently more restricted than that of the industrial volumes of the New Survey of London, with which comparison at once suggests itself; and the inquiries had also to be carried out within much severer limits of time. But the terms of reference encouraged a broad survey of their subject-matter, and the investigators made admirable use of their opportunities in this respect. A further disadvantage was that, since their completion was required by the end of 1931, their conclusions had to be drawn before the results of the departure from the gold standard had been fully worked out; and this gave inevitably a tentative character to some of their conclusions, though the series included some successful forecasts of the future course of events.

The reference laid particular stress upon certain problems—the contemporary industrial position in each region, the existence or otherwise of prospects of early expansion of its industries or of development of new ones, with special reference to recent general industrial changes, and the prospective employment capacity and probable labour surplus of each region within the

[1] The last two propositions were suggested to my mind by a hint given by Mrs. Robinson herself. She must not, however, be held responsible for them.

next few years. The number of the inquiries led to certain differences in presentation, in standards of calculation and measurement and, to some extent, in the subjects dealt with; but it also contributed to give a wider range of discussion and outlook. Usually the method adopted was to begin with a general picture of each area, to follow this by a detailed treatment of its industries individually, and to conclude with a discussion of future prospects and of the extent and character of the labour surplus. Each of the regions dealt with has a character of its own, which contributed to give individuality to the reports; and that for Merseyside gave an admirable picture of the economic life of a great shipping and transport centre.

The highly important question of estimating the surplus of labour has many difficulties. Generally speaking, the year, or the period ending with, 1929 can be taken as the post-war normal; but a complete estimate of the surplus requires to take account of the increase in post-war, over pre-war, unemployment, and in particular to distinguish, so far as possible, the surplus proper from the reserves required for the ordinary working of industry. The North-East report in estimating an unemployment in the near future of 80,000 or 15 per cent., regarded 3 per cent. of this as "the margin for the normal floating movement of workers," thus giving a reserve of 16,000 and a true surplus of 64,000. The Merseyside report, again, provides valuable separate estimates of surplus due to world depression and to local and other conditions, on the basis of a comparison of the unemployment figures for Merseyside in 1931 and 1929, and for Great Britain as a whole in 1929. Possibly more might have been done in some cases to make comparisons with pre-war conditions and to utilise the calculation made by the Government Actuary for the Blanesburgh Committee of a pre-war average of unemployment of $4\frac{1}{2}$ per cent.

The areas dealt with provide some interesting contrasts, and some important considerations emerge. The reports, for instance, rather stress the danger of excessive localisation, notably in South Wales, with its very marked dependence on coal, and in the North-East Coast with its high concentration on the heavy industries. The South Wales report emphasises the effects of specialisation not only on the whole area, but as between different districts within it. Swansea, for instance, has a more varied range of industries than most of the area and has remained relatively prosperous during the period under discussion. Again, Merseyside, as predominantly a shipping region, has been specially hit

by the decline in the export trades, and in certain directions appears to be more severely hit than the rest of Lancashire. The smaller or more isolated areas seem to suffer most from depression, such as the remoter valleys in the north of the Welsh coalfield, or the villages, almost entirely dependent on one or two mills, in the cotton-weaving belt of Lancashire. Incidentally, the Lancashire report contains a suggestive examination of the effects of technological improvements upon the future surplus of labour in the cotton industry.

The extent of specialisation in an area seems also to affect the prospect of attracting "new" industries, in regard to which geography also exerts an influence. The North-East Coast report, for instance, stresses both causes, and emphasises the effects of distance from the great consuming centres and consequent increases in transport costs. Similarly, the report on the South-West of Scotland says: "Some firms complain that the distance from London operates against them, in so far as foreign buyers will not come so far North." The Lancashire report, on the other hand, emphasises that the variety of Lancashire's industries is greater, and its dependence on cotton less, than is generally assumed, and argues, with ability, the case for special efforts to direct new industrial developments towards the county. In particular, it suggests that an equal total unemployment in the whole country is less injurious, if widely dispersed, that when concentrated in a few areas. For the latter involves greater injury through the effects of permanent unemployment, and more serious results for the general building, transport and distributive organisations. The report also believes that short-time methods of applying unemployment insurance in the cotton industry have the merits of maintaining habits of work and minimising the dangers to them of continuous unemployment. The South Wales report, again, argues for a definite policy of bringing new industries to the region. Here migration to other areas, estimated at 242,000 between 1921 and 1931, has been so large that "the remaining surplus must consist largely of persons specially difficult to transfer." Moreover, further large-scale transference must affect unfavourably the general economic life and cause industrial equipment to "become redundant or to be wasted by partial utilisation, whilst elsewhere the community will expend its labour power on new equipment. A deliberate effort to introduce new industries into the region seems justifiable as a sound measure of public economy."

The entry of new recruits to industry appears sufficiently

rapid to aggravate the problem. Both Lancashire reports lay stress upon the point, and in South Wales a local inquiry reported a probable surplus of juvenile labour between 1932 and 1938, on the basis of a school-leaving age of fifteen, in all but a few areas. On the other hand, reports on the mobility of labour are on the whole reassuring. On Merseyside, "the labour force is acknowledged to be highly adaptable to a wide variety of occupations and shows exceptionally high mobility." This seems largely due to the greater facilities for transfer provided by mechanised production, especially where much of the labour is unskilled. Again, in the South Wales coal-field, psychological and other causes normally limit mobility to places outside the area; but within the area itself a considerable degree of mobility is reported. In Lancashire again, whilst unemployment insurance is held to contribute to an existing shortage of females in parts of the clothing trades, doubts are thrown upon the effects of the much-criticised short-time system. Indeed, family earnings and slackness in other industries appear to be regarded as more potent influences. "It seems hardly open to doubt that, if other industries could offer full-time employment in such towns as Bolton and Blackburn, there would be no lack of applicants for employment at wages lower than could be earned on full time in cotton."

Special interest attaches to the Distributive Trades, and all the reports discuss their growth. Much of this appears to be permanent and to increase permanently the demand for labour. "The demand for the products of the 'new' industries has brought into being a new army of workers to distribute them; so far as this expansion is the sign of a rising standard of living even in a 'depressed' region, it may be regarded as a desirable development and a definite compensation for the decline of the heavy industries" (South Wales). Moreover, the facts seem to suggest that, in part at least, the present evils of mechanisation are abnormal, since the world depression has prevented the industrial expansion which would ordinarily result from technical improvements, thereby mitigating the displacement of labour. There are, however, certain less favourable features in the growth of the Distributive Trades. The South Wales report, for instance, fears that part of it is parasitic in character, involving blind-alley juvenile employment or the use of low-wage adult labour. Moreover, the Merseyside report suggests that the depression may itself have tended to increase temporarily employment in these trades, by causing severer competition to secure custom;

and this is likely to retard temporarily the absorption of surplus labour after trade revival has begun. For, at first, there may actually be some reduction of employment, as the severity of the competition is relaxed. A somewhat similar influence may be felt owing to the question of "slack" in employment. In certain industries, notably shipping and railways, depression sometimes takes the form not of dismissals or short time, but of causing workers in full-time employment not to be fully occupied; and in such cases fresh workers are not likely to be engaged till the time of those already in work is completely provided for. Nor must the normal effects of short-time working be overlooked, and sometimes there is great leeway to be made up, notably among cotton weavers working less than the normal number of looms.

Many other points of interest arise out of the Surveys, on subjects such as the position of female labour or the results of technological improvements, whilst the detailed reports on particular industries should yield much information. But it may be mentioned that references are made in several reports to defects in industrial statistics and to means of improving them. The Lancashire Survey, in particular, experienced difficulties from the fact that the areas covered by the available returns differed from each other and from the area of the Survey itself, and makes some excellent suggestions for improving and co-ordinating central and local statistics on national or regional lines.

N. B. Dearle

OBITUARY

Professor Laurito Vilhelm Birck (1871–1933)

Laurito Vilhelm Birck was born in Copenhagen on February 17, 1871, and died on February 4, 1933. Entering academic life in 1908 as a *Docent* in the University of Copenhagen, he was appointed Professor of Economics in 1911 and in 1930–31 he served as Rector of the University. Before this, he had accumulated a rich store of experiences which he was able to utilise to give life and realism to his lectures. In his twenty-fifth year he became the editor of an important conservative newspaper. Some six years later he took his doctor's degree in political science (the first in Denmark). In the following year he was elected a member of the Danish Parliament, in which he served from 1903 to 1910 and again from 1918 to

1920. For a long time he was the youngest member, and though sometimes very tiring in debate, he could also when the mood was on him sparkle and scintillate, rousing his audience to enthusiasm. His most notable achievement in the Parliament was the unmasking of Glückstadt, chief of an important Danish bank and a notorious swindler who had defrauded the bank of 250 million Kroner. On many other though less spectacular occasions he brought numerous other swindlers and wrongdoers to justice. He always sought the truth fearlessly and without regard to persons. Once he said jokingly that he well knew he sometimes brayed as other donkeys, but sometimes he was that donkey through whose mouth the Lord spoke.

A man of many peculiarities, he seldom got up before one o'clock in the afternoon and sometimes he went to the University to give his lectures with his hair uncombed, and once, it is said, he arrived without his tie. He often spent the night at a newspaper office, where he always expected the editor to provide a glass of beer and numerous cigars. The ashes of these cigars can still be seen on the carpets, as an ash-tray had no interest for Birck. He always called himself Dr. Birck, and never Professor Birck, because, as he said, " They have made me Professor but Doctor I have made myself." He liked to get letters though he seldom answered them, and once when someone complained, he replied, " Do you think I am a clerk ? "

Birck was held in extraordinary affection by his pupils and for them he could never do enough. As a teacher he sought no other reward than the pleasure of seeing his pupils getting good positions. He would talk to a student for hours, walking up and down the streets long after midnight, perhaps even without noticing that it was raining. Then before he returned to the hotel where he lived he would suddenly ask the young man, " And what is your opinion ? " but before this could be given he would add, " It doesn't matter what your opinion is, for all people are wrong; but it does matter that you have an opinion."

He was always ready to help his pupils to the full extent of his ability. He inspired them by his original genius, his acute observations and his ripe judgment. Sometimes, it is related, he would sit on one of the tables in his class-room with his pipe lit and enthrall his students with his penetrating observations on economic conditions in Denmark and foreign countries.

To English readers, Dr. Birck is best known by his *Theory of Marginal Value* published in 1922, which was based on a series of nine lectures delivered at the London School of Economics.

He also contributed an article to the ECONOMIC JOURNAL entitled "Theories of Over-production" (March 1927, Vol. XXXVII, pp. 19–32). In addition he produced a number of works in his native language, including a small, but comprehensive book on the Economics of Transport.

K. G. FENELON

FRED MANVILLE TAYLOR, 1855–1932

FROM his youth, during which he was a college companion of the late Simon N. Patten, Professor Taylor was recognised by his associates as a man of the most precious intellectual and social gifts; and he presently became a teacher of economics who exercised a wide influence through his abler students. His reputation has spread rather slowly, because his delicate constitution and his passion for thoroughness conspired to limit sharply both the volume and the scope of his publications. To a degree he was like Thornton Wilder's Cardinal, "a great talker, who for want of a Boswell must have his greatness perish with him." Virtually his whole life was spent in three small southern-Michigan cities: Northville, his birthplace; Albion, where he was Professor of History from 1879 to 1892, and Ann Arbor, where he received the doctorate in 1888 and taught courses in Economics from 1892 until his retirement in 1929. His interest in philosophical and political matters found expression in his doctoral dissertation, "The Right of the State to Be" (1891), and in several articles on American monetary and banking problems during the silver-gold controversies of the 'nineties. In 1906 his students were supplied with a 300-page book, *Some Chapters on Money*; in 1907 appeared *Some Readings in Economics*, with introductory comments; and in 1911 came the first of seven limited and local editions of his *Principles of Economics*.

Only in 1921, in his sixty-sixth year, was offered commercially to the world this modest undocumented text-book, which epitomises the substance of his teaching. It reflects his neglect of details of wage theory, and his inability to keep abreast of monetary doctrines; but it also presents a theoretical view of value, rent, interest, and profit, as well as a "Critique of the Existing Economic Order," which will long be valued by advanced students. It is a neo-classical system which achieves an extreme degree of logical coherence without undue sacrifice of realism.

Z. C. DICKINSON

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RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCVI. Part I. *Statistics in India.* LORD MESTON. *Statistical Method in the Control and Standardisation of the Quality of Manufactured Products.* E. S. PEARSON. *Estimate of the Jewish Population of London in 1929.* H. L. TRACHTENBERG.

Economica.

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English Historical Review.

APRIL, 1933. *British Payments in the American Colonies, 1685–1715.* C. NETTELS.

Quarterly Journal of Economics.

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Review of Economic Statistics (Harvard).

FEBRUARY, 1933. *Review of the year 1932.* W. L. CRUM and J. B. HUBBARD. *The Agricultural Situation, January 1933.* J. D. BLACK. *The Volume of Industrial Production in the U.S., 1932.* D. WESTCOTT. *General Economic Conditions. Chronology, October 1931 to December 1932.* (Editorial.)

Annals of the American Academy of Political and Social Science.

MARCH, 1933. *The International Labour Organisation:* a study by various experts of the following aspects of the I.L.O.: *Its Origin and Nature, International Relations in the Organisation, Contributions to Current Economic Problems, The Organisation in Action, The I.L.O. and the United States.*

American Economic Review.

MARCH, 1933. *American Trade Unionism and Social Insurance.* S. E. BARNETT. *Tariff Legislation and International Relations.* P. G. WRIGHT. *Ricardian Epoch in American Economics.* N. A. WESTON. *Faulty Investment of Corporate Savings.* R. WEIDENHAMMER. *Campaign against the Labor Injunction.* P. F. BRISSENDEN. *World's Output of Work.* T. T. READ. *Economics of Saving.* S. P. WATKINS.

MARCH, 1933. SUPPLEMENT. *Papers and Proceedings of the forty-fifth Annual Meeting of the American Economic Association.* The subjects dealt with are *Monopoly, Social Insurance, Stabilisation of Industry, Federal Reserve Policy, The Business Unit, Farm Debt.*

Journal of Political Economy.

FEBRUARY, 1933. *The Expansion of Bank Credit, I.* J. W. ANGELL and K. F. FICEK. *Richard Carmarden's "A Caveat for the Quene" (1570).* J. U. NEF. *Treatment of Credit in Contemporary Monetary Theory.* L. CURRIE. *The Customers' Loan Market and the Open-market Supply of Loanable Funds.* J. M. PETERSON. *Frisch on the Measurement of Utility.* H. SCHULTZ. *An Unpublished Letter of Ricardo to Malthus.* J. VINER.

Wheat Studies (Food Research Institute, Newport).

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MARCH, 1933. *Price Relations between July and September Wheat Futures at Chicago since 1885.*

APRIL, 1933. *World Wheat Crops, 1885–1932.* A new series, with acres and yields, by countries.

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South African Journal of Economics.

Vol. I. No. 1. *Two Conferences.* J. G. VAN DER HORST. A discussion of the relations of legal control and the economic system. *Robinson Crusoe Economics.* H. M. ROBERTSON. *Die Vraagstuk van Prysstabilisasie.* C. G. W. SCHUMANN. *The Determination of Wages in South Africa.* F. A. W. LUCAS. *Women Workers in Witwatersrand Industries.* H. P. POLLAK. *Sterling Price and Exchange Movements.* A. G. CHARLES. *South African Monetary Policy.* S. H. FRANKEL and R. LESLIE.

International Labour Review.

FEBRUARY, 1933. *Housing Problems and the Depression.* G. MÉQUET. *Popular Arts and Workers' Spare Time.* J. DESTRÉE. *Foreman Training in American Industry.* E. S. COWDRICK. *The Development of Employers' Organisations in India.* A. H. MARU. *Statistics of Movements in the General Level of Wages.*

MARCH, 1933. *The Preparatory Conference on the Forty-hour Week.* F. MAURETTE. *Technical Progress and Unemployment.* M. BOUNIATIAN. *An Inquiry into the Life of Unemployed Workers in Poland.* J. ROSNER. *The Five-Year Plan and the Regulation of the Labour Market in the U.S.S.R.*

APRIL, 1933. *The Economic Depression and the Employment of Women.* M. THIBERT. *Industrial Relations in a New England Textile Mill.* G. A. JOHNSTON. *The Problem of the Unemployment of Young Persons. International Comparison of the Retail Prices of Certain Important Food-stuffs, July 1929 to October 1932.*

Revue d'Économie Politique.

JANUARY, 1933. *L'économie libérale et l'économie dirigée.* G. DE LEENER. *L'homme et la machine.* M. AUGUY. *Léon Duguit et l'économie politique.* G. PIROU. *Le travail des femmes en France devant la statistique.* F. DAURIAC. *Le Maroc et la crise économique.* M. AMPHOUX.

Journal des Économistes.

FEBRUARY, 1933. *Devant le déficit.* E. PAYEN. *La Mandchourie.* R. J. PIERRE. *Les prix et la Crise.* M. CARSOW. *Les Sociétés anonymes en Pologne.* G. DE KOWNACKI.

MARCH, 1933. *Le chômage, la monnaie, et les prix.* M. CARSOW. *La Chine économique.* R. J. PIERRE.

APRIL, 1933. *Les hésitations du Gouvernment devant la nécessité du redressement financier.* E. PAYEN. *Placement des emprunts des grands collectivities.* P. GAUBOUE. *Les Économistes et le Prolétariat.* E. H. MASSA.

Révue de l'Institut International de Statistique.

Vol. I. No. 1. *Parallélisme, Corrélation, Causalité.* L. MARCH. *La statistica delle nascite secondo l'ordine di generazione.* (With résumé in English.) F. SAVORGNAN. *Index-Numbers of Wages.* J. W. NIXON. *Sur une méthode pour déterminer le nombre moyen des enfants légitimes par mariage.* C. GINI. *Statistics of International Wholesale Prices, 1924–33.*

Révue de l'Institut de Sociologie.

JANUARY, 1933. *L'avenir du capitalisme.* B. S. CHLEPNER.

Kyoto University Economic Review.

DECEMBER, 1932. *The Problem of Organs for Tax Assessment.* M. KAMBE. *The Development of the Study of Economic History in Japan.* E. HONJO. *Cyclical Variations and Progressive Changes.* Y. TAKATA. *The "supplying purchasing power" Plan.* K. TANIGUCHI. *On the Form of the Distribution of our National Incomes.* S. SHIOMI.

Scientia.

MARCH, 1933. *Contrasti tra le teorie economiche e i fatti.* C. GINI.

Zeitschrift für Nationalökonomie.

MARCH, 1933. *Das Zweck-Mittel-Denken in der Nationalökonomie.* G. MYRDAL. On the Idea of Purpose and Means in Economic Theory. *Die grundlegende Ursache der wirthschaftlichen Schwankungen.* G. U. PAPI. The author endeavours to reduce *ad absurdum* the theories such as those of Hawtrey, Robertson, and Keynes, which attribute the variation of prices to money and credit. An extraneous event must initiate a cycle, which then proceeds by errors of estimate. *Die gegenwärtige Stand der reinen Theorie der Finanzwissenschaft in Italien, III.* M. FASIANI. Discusses the theories of Pantaleoni, Einaudi, Barone, and others.

Schmollers Jahrbuch.

FEBRUARY, 1933. *Heinrich Herkner zum Gedächtnis.* The speeches of Sering, Müller, and Sombart at the Heinrich Herkner memorial meeting. *Heinrich Herkner als Sozialpolitiker.* C. LEUBUSCHER. *Reine und realistische Wechsellagenlehre.* G. CLAUSING. The problems of cyclical fluctuations are not amenable to a purely theoretical treatment, though there is much to be said for Schumpeter's original theoretical approach. The methods of the "realistic-historical" school of trade-cycle theory are defended against recent criticisms. *Arbeitsbeschaffung und Rentabilität.* P. QUANTE. The general unemployment crisis in Germany and the catastrophe of the last year. Proposals are advanced for a large-scale mitigation of unemployment in Germany by the stimulation and extension of industries manufacturing consumption-goods, and details given of the financial scale of the operations involved. *Ist Sozialpolitik im Liberalismus Möglich?* F. LÜTGE. *Wert und Preis als Ausdrucksformen verschiedener Entwicklungsstadien.* K. PINTSCHOVIUS. A review of Gottl's latest work, *Wirtschaft und Wissenschaft*, which is affiliated to the Sombart school.

Zeitschrift für die gesamte Staatswissenschaft.

FEBRUARY, 1933. *Der Inhalt der Politik.* A. KOLNAI. *Zur Neugestaltung der Gemeindefinanzwirtschaft.* J. JESSEN. *Russland und die Kontinentalsperre.* E. TARLE.

APRIL, 1933. *Probleme des korporativen Staates.* L. M. LACHMANN. The idea of "corporative" associations within the Fascist state is examined. The *Sindicati* which have been substituted for the *Confederazione Generale di Lavoro* are non-political in character. But as long as private initiative remains as it does in Italy, no "corporative" economic system can exist. *Zur Methode der Preisgeschichte.* M. J. ELSAS. The work and aims of the International Scientific Committee for the History of Prices are described, and it is hoped that light will be thrown on many problems of German historical research as a result of the German section's work. *Die objektivistischen statisch-deduktiven Preistheorien.* E. H. VOGEL. An analysis of the price-theories of Cassel, Adolf Weber, and Oppenheimer, and their limitations in the interpretation of concrete economic phenomena. The assumptions they make in dealing with static conditions do not hold for the real world.

Archiv für Sozialwissenschaft und Sozialpolitik.

FEBRUARY, 1933. *Zur Soziologie des Faschismus.* F. BORKENAU. *Nordwesten und Osten in der deutschen Futtermittelpolitik.* H. NIEHAUS. *Schwerigkeiten und Aufgaben internationaler Lohnkostenvergleiche.* M. S. BRAUN.

MARCH, 1933. *Zur Systematik der Marxschen Staats- und Gesellschaftslehre.* E. LEWALTER. *Warenlagerpolitik und rationalisiertes Angebot.* H. MAKOWER. By rationalised supply is understood such a regulation of supply as attempts a realisation of the long-run equilibrium price and the long-run equilibrium production. The theory of a rationally controlled supply based on the concept of the elasticity of supply and demand as distributed through time is

elaborated and applied to such experiments as the control of rubber, sugar, and coffee. The importance of time-lags in the adjustment of capital investment and production is emphasised. *Das Völkerbundsekretariat.* F. BARTOSCH. *P. J. Proudhon in neuer Beleuchtung.* A. MENZEL.

APRIL, 1933. *Das Fellachenproblem in Vorderen Orient. Zur Orientalistischen Agrarfrage.* A. BONNÉ. The outstanding feature of the pre-war agricultural system in the Near East was the preponderating importance of the land, both socially and economically. This is reflected in the Islamic legal code and in the feudal organisation of society; the agrarian system was isolated and free from external influences. The war created the fellaheen problem in its present form by making the peasant conscious of potential improvements, by subjecting the agrarian market to world prices, and by overthrowing ancient conditions of land tenure. *Das Währungspolitische Ziel der Papierwährungsländer.* A. NIELSEN. The deficiencies of the purchasing-power parity theory for determining policy, especially in abnormal periods, are discussed. The stabilisation of the internal price-level would only be beneficial psychologically for countries with paper currencies; it could only help to cure depression if the wholesale price-level were simultaneously raised and the foreign exchange were made to fall to stimulate exports. *Ausgangspunkte, Formen und Wirkungen des Devisenzwangswirtschaft.* H. GNOSS. The purpose of foreign exchange control is to prevent a flight of capital, not caused by differences in interest-rates and risk-premium. The theoretical problems of organising capital transactions which do not adversely affect the balance of payments are applied to Germany. It is impossible to abolish the control of foreign exchanges until confidence—internal and external—is restored; and the first sign will be the obliteration of the divergences between German and foreign quotations for German bonds. *Uberblick über neuere Literatur auf dem Gebiete der sozialen Fürsorge.* MARIE BAUM. *Zur Soziographie des Arbeitslosigkeit.* H. ZEISL.

Jahrbücher für Nationalökonomie und Statistik.

FEBRUARY, 1933. *Die abgeleiteten Einkommen.* M. KELBER.

MARCH, 1933. *Die Motive der Fürsorge.* E. WAGNER. *Die Gaussche Verteilung der Gestorbenen.* E. J. GUMBEL.

APRIL, 1933. *Zur Soziologie des Berufs.* K. F. MANN. *Kartellpreise und Tariflöhne im Konjunkturverlauf.* H. WAGENFÜHR.

Weltwirtschaftliches Archiv.

APRIL, 1933. *Der wirtschaftliche Weltwille. Die Krisis und die Weltwirtschaftskonferenz.* J. HIRSCH. The causes of the crisis are the crash of the prices of materials and the accumulation of stocks. The former has upset all industrial values, and created a new world level of values, which effects both the volume of trade and the payments of interest and indemnities. A new level of values is necessary for the sake of world indebtedness. *Die Industrialisierung der wirtschaftlich rückständigen Länder.* J. B. CONDLIFFE. Discusses the spread of the Industrial Revolution in relation to the present crisis, and lays stress on the effect of trade restrictions in preventing industrial development in India and China, particularly

in the textile industries. *Entwicklungstendenzen im Weltlandel der letzten 50 Jahre.* W. NEULING. The general dismemberment of world trade has affected the industry of Europe by new competition, especially from America and Japan; but new varieties of product have still a good chance in spite of Protection. *Zur Frage der sogenannten Enteuropäisierung des Welthandels.* W. SCHLOTE. A statistical inquiry into the fall of Europe's share of world trade, and of the regions specially affected. *Kritische Betrachtungen zur neuzeitlichen Zollpolitik.* J. MAZZEI. Discusses the relation between international parity of tariffs and limited preferences, and decides in favour of the former. *Die französische Volkswirtschaft in der Weltkrisis.* L. PEMMERY. The incidence of the crisis in France came later, but with no less severity, than elsewhere. International action is a condition of betterment. *Die Entwicklung des japanischen Aussenhandels.* T. YUMOTO. A statistical-historical inquiry. *Zur Frage eines internationalen Systems der Goldwährungen.* E. LINDAHL. In relation to proposals made to a Gold Committee in Sweden, the question of the most acceptable future system is discussed. *Die Struktur der zwischenländischen Kapitalbewegungen.* H. H. HOHLFELD. This article aims at a new method of inquiry into the nature of the international short-loan fund and its relation to the international credit system. It is held that there are different effects on the distribution of credit according as it is gold, credits of banks of issue, or credits of private banks which are transferred. The short-loan fund has created some almost insoluble problems for banks of issue, and a new technique of international co-operation is necessary. *Begriff und Bedeutung des Kredites.* R. REISCH. Distinguishes real credit (*Sachkredit*) from fiduciary. The risks involved in the latter are discussed.

Giornale degli Economisti.

NOVEMBER, 1932. *Risparmio, investimento, interesse.* PROFESSOR B. FOÀ discusses at some length the various meanings which the Classical School, Böhm Bawerk and Mr. Keynes have given to the phrase "the equilibrium rate of interest," and comments on the recent controversy between Mr. Keynes and Professor Hayek. *Economia e finanza nell' opera di Leone Wollemborg.* F. LUZZATTO. *Alcuni indici sulle industrie tessili italiane.* L. LENTI.

DECEMBER, 1932. *Problemi economici dell' ora presente.* G. MORTARA. An analysis of the difficulties from which the world is suffering to-day shows that they can only be solved by international action and co-operation. *L'imponibile di mano d'opera nell' economia agraria del bassopiano lombardo.* P. ALBERTARIO.

JANUARY, 1933. *Le vie d'uscita.* G. U. PAPI. A critical examination of a number of proposed remedies for the present industrial depression, with the conclusion that the only effective remedy consists in a systematic and rational reduction of costs. *Considerazioni intorno alla teoria della domanda.* V. DOMINEDÒ. A discussion of certain aspects of the theory of demand with special reference to the methods of approach employed by Marshall and Pareto. *Le responsabilità degli Stati Uniti nelle "riparazioni."* A. FELLETTI-SPADAZZI.

FEBRUARY, 1933. *Ordinamenti e sistemi economici nella storia e nella realtà corporativa.* C. E. FERRI. The Corporative organisation in its present form in Italy has the following main characteristics :

(*a*) it is a unitary and totalitarian structure on a national basis; (*b*) it is a system of open groups; (*c*) it is a non-exclusive system, inasmuch as the same individual can participate in different groups; (*d*) these groups impose certain uniform controls on the individuals who constitute them; (*e*) the State imposes certain uniform controls on individuals who are outside the groups; (*f*) it is a system of groups considered equal under the control of the State. An examination of each of these characteristics and a comparison with the ancient guilds and corporations shows that the Corporative organisation of Italy is the climax and realisation of a long historical process. *Gli esperimenti di compartecipazione collettiva nel Mantova.* A LANZILLO. An account of a new form of collective métayage which has recently been adopted in the province of Mantua. *Il Consiglio nazionale delle corporazioni; notizie sul suo regolamento interno e su istituzioni estere affini.* G. BASSANI.

La Riforma Sociale.

NOVEMBER–DECEMBER, 1932. La "sterilizzazione" dell' oro. A. CABIATI. So far from regretting the sterilisation of gold in recent years by the Bank of France and the Federal Reserve System of America, we should welcome this as providing the means by which, when a revival comes, powerful assistance in the form of loans can be made by these countries to other countries which are in need of capital to aid and accelerate their recovery. *Il protezionismo e la crisi.—Il tramonto della "clausola della nazione piu favorite."* E. GIRETTI. An account of the manner in which in recent years tariff systems have been so extended and developed as largely to nullify the benefits formerly conveyed by the Most-favoured-nation Clause. The recent policy of England, especially that decided at Ottawa, comes in for severe criticism. *A favore delle azioni privilegiate (ma non di quelle a voto plurimo).* L. EINAUDI. *L'imposta complementare e l'accertamento deduttivo.* A. DENI.

JANUARY–FEBRUARY, 1933. *La crisi e le ore di lavoro.* G. AGNELLI and L. EINAUDI. An exchange of letters between Senator Agnelli and Professor Einaudi, in which the former urges the need for a general reduction in the hours of labour as a remedy for technological unemployment, while the latter puts forward various objections to such a measure if it is made general and compulsory. *La crisi e i nuovi provvedimenti del Governo.* PROFESSOR A. CABIATI discusses the nature of the economic crisis in Italy with special reference to the measures recently taken by the Italian Government to liquidate some of its effects in the industrial field. In view of the fact that the intervention of the State in industry during and after the War was of a very far-reaching character, it is not possible for the State to ignore the difficulties with which many industries are now confronted. Such action does not imply the abandonment of the free play of economic forces, for this free play was abandoned already during the War, but rather the re-creation of conditions in which economic forces can once again operate freely. *Di taluni sofismi più comunemente in uso nelle argomentazioni sociologiche.* U. RICCI. *Protezionismo e variazioni nel livello dei prezzi.* V. PORRI. The cause of the growth of protective tariffs and restrictions on international trade is to be found largely in the effects of falling prices on the economic

system of all countries. *Affitti agrari a canone variabile.* P. ALBERTARIO. *La riforma dei dazi di consumo e suoi primi effetti.* F. A. RÉPACI. *Sul movimento dei prezzi all' ingrosso dal* 1921 *al* 1930. S. GOLZIO. "*Valore intrinseco*" *delle azioni ed umori del pubblico.* R. LEVIS.

MARCH–APRIL, 1933. *Il mio piano non è quello di Keynes.* L. EINAUDI. A criticism of the proposals in Mr. Keynes's pamphlet *The Means to Prosperity*, in particular of the proposal for an international issue of gold notes. *Sugli interventi a favore delle impresse pericolanti.* E. GIRETTI. *Ancora sugli interventi: causi ed effetti.* A. CABIATI. Senator Giretti pleads for a decrease of protection and State intervention in favour of branches of industry which find themselves in difficulties, while Professor Cabiati urges the need for State action to remedy and alleviate evils for which the State itself has been largely responsible in the past—especially during the war period. *Economia ed etica?* G. LORENZONI. *Sullo scarto della parità dei poteri di acquisto della lira.* L. CIOFI DEGLI ATTI. An analysis of the changes in the Italian balance of trade since the War does not bear out the theory that a depreciated exchange in itself constitutes a bounty on exportation. Inflation gave rise to larger exports during those phases when domestic consumption had been reduced and industry was driven to export in order to find a market for products which could not be sold at home. *Consigli ai risparmiatori.* G. SACERDOTE JACHIA. *Sul metodo di ricerca e critica negli studi finanziari.* B. GRIZIOTTI and C. E. *A proposito di Cantillon e di indici alfabètici.* A LORIA and L. E. Professor Einaudi reproaches the economists of his own country and of all others except the Anglo-Saxon countries for their inveterate failure to provide their books with adequate alphabetical indexes. *Dei libri italiani posseduti da Adamo Smith, di due sue lettere non ricordate e della sua prima fortuna in Italia.* L. EINAUDI. An interesting article commenting on the Italian books in the library of Adam Smith and describing the origins of his influence in Italy.

De Ekonomist.

NOVEMBER, 1932. *De Economische Calculatie in het Socialisme.* A. A. VAN RHIJN. The question of "calculation" played a small part in the early discussion of Socialism. It was brought forward by Mises. Interest in this aspect has recently revived, owing to (i) the Russian experiment, and (ii) ideas of a "planned economy," arising out of the present crisis. Reference is made to the recent works of Landauer, Klein, Heimann and others. Landauer's suggestion that Socialism may build on the calculations of Capitalism is untenable. Because of the absence of automatic adjustment and the extent of control, calculation is more necessary in Socialism than in Capitalism. The influence of price acts quickly in Capitalism; it is otherwise in Socialism. Statistics of consumption would be an unsatisfactory guide, as these refer to the past, and consumption, moreover, depends on price. There would thus be a danger of excess or shortage. The difference between monopoly (*e.g.* a Kartel) in capitalistic society and monopoly in the socialistic state is explained in criticism of Heimann. They differ in degree and in time. The proposal to base calculation on an hour's work is criticised on

familiar lines. The "hour's work" will vary according to efficiency of the worker, the agreeableness of the work and above all the capital equipment. Natural conditions (agriculture and mining) may also vary. The problem of stimulus is considered in reference to a suggestion of Landauer for the encouragement of workers by giving them an assured interest for a number of years in improvements devised by them. The difficulty with regard to interest, which is inevitable in a socialistic community, is illustrated by reference to Russia. Socialism would fail to distinguish the technically possible and the economically desirable. Even in the socialistic state, conditions would be dynamic and changing, and there would be no method of determining the price for the use of capital. The demand for capital and the supply of capital would be in the same hands. *De mogelijkheid van een meervoudig economisch evenwicht. II.* J. G. KOOPMANS. A continuation of the previous article providing a mathematical analysis of the problem of "multiple economic equilibrium."

DECEMBER, 1932. *Nederlandsch Indie en de Crisis.* J. C. KIELSTRA. The crisis signifies with regard to Dutch India that its place, relative to other parts of the world economy, has changed. The causes are, primarily: (i) changes in capital possessions, to the disadvantage of Western Europe as compared with the U.S.A. and Japan; (ii) the changed situation in Russia and China; (iii) the endeavours of many countries to be independent of others in important world-products; (iv) protectionist tendencies in nearly all countries. The world crisis is not part of the trade cycle; it represents a structural alteration in the world-economy. Dutch-Indian products are less desired, and consequently there has been a set-back in foreign trade. The effects of the crisis on the European population and on the native population are considered, and favourable counteracting factors are in each case indicated. The conclusion is that there is a better opportunity than in European countries for adaptation to the lower level of life made necessary by the crisis and its consequences. The effects on the budget are also considered. There is only one way out of the difficulties, viz. as speedy an adaptation as possible to the lower standard imposed here as elsewhere. *De mogelijkheid van een meervoudig economisch evenwicht. III.* J. G. KOOPMANS. Concluding section of the mathematical discussion of "multiple economic equilibrium." *De 40-urige werkweek.* F. BREEDVELT. A discussion of the difficulties inherent in the introduction of a 40-hours week.

JANUARY, 1933. *Economische wetmatigheid, economische mogelijkheid en zedelijke eischen.* M. J. H. COBBENHAGEN. A philosophical discussion of the relation of Economics as a branch of knowledge to Ethics, and of the relation of ethical demands to economic possibility. In the main an analysis of the nature of an economic law, and of the conceptions of "economic possibility" and of "ethical demand." *De gouden standaard en de crisis.* H. W. C. BORDEWIJK. In the first place, the writer discusses the origin and functions of money. "As soon as gold has a *real* price, it is an unmistakable sign that the link between gold and money has been broken." The medium of exchange becomes the measure of value. It is explained that constancy of value in a medium of exchange is not comparable to constancy in a measure

of length. In principle, money, merely as a medium of exchange, could function without stability of value. With increasing importance of the element of time, stability becomes more important. In the past, the meaning of stability has been subjected to two criteria, according as changes in the purchasing power of the standard arise from causes connected with the standard, or from causes not so connected. In fact money is always the guilty party. Its duty is to adapt itself to changes in the world; it must follow and be neutral. Stable money implies that the general price-level should remain stable, not that individual prices should. Holland should not follow England's example. England abandoned the gold standard owing to special causes (which are enumerated); the step was not taken in order to achieve an improvement in the monetary system. In returning to the gold standard at the old parity, England was the dupe of a perverted idea of national pride. Until the crisis has been overcome, the time will not be ripe for reformation of the monetary system in the only direction which will exclude a general rise or fall of prices. *Het kassiersbedrijf te Amsterdam in de 17 eeuw.* H. VAN HELDEN. A study of the early banking history of Amsterdam.

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THE ECONOMIC JOURNAL

SEPTEMBER, 1933

THE ANNUAL MEETING OF THE ROYAL ECONOMIC SOCIETY

THE forty-third annual meeting of the Royal Economic Society was held at the London School of Economics on May 25, 1933: the President (Professor Edwin Cannan) being in the chair. The meeting was largely attended.

The accounts for 1932 were received and approved. The Secretary reported that 429 new Fellows and Library Members had been elected during the year, bringing the total membership of the Society to 4,374 as compared with 4,323 at the end of 1931, 2,875 five years ago and 694 in 1914. The officers and Council of the Society were elected for the current year, Professor Cannan being re-elected President of the Society for a second term.

Before the transaction of the above business, the President read the followi[illegible] ess on *The Need for Simpler Economics*:—

THE NEED FOR SIMPLER ECONOMICS

IT is rash for one of my generation to pass any judgment on the elaborate economic theory which is now being taught to the young, for we do not understand it. Without too trustfully accepting the *ignotum pro magnifico*, we must hope for the best. But we may perhaps be permitted to point out and deplore the fact that the almost complete absorption of the younger teachers in making what they rightly or wrongly believe to be important advances in the higher branches of theory is leaving the public at the mercy of quacks. Surely out of the large accessions to the ranks of professional economists which have taken place in recent years, a substantial force might be spared to assist common sense to grasp the bare elements of economic science, without a knowledge of which democracies and dictators alike are bound to make the most grotesque blunders.

It is no use to say that the bare elements are so simple and obvious that there is little to be said about them, and that this

little has been said so well and so many times that it can do no good to say it over again. In fact, most of the simplest things in economics have never been put in such a way as to carry conviction to the mind of the sort of person who is in the great majority of every public, and the blame is not altogether to be put on his feeble mind, but in large measure on the unnecessarily complicated expositions offered by the economists.

I propose to-day to discuss only two of the innumerable examples of the mischief caused by the failure of the economists to explain simple things so that they can be understood by the people. One is the mischief caused by the worship or undue glorification of agriculture, and the other that caused by the similar worship or undue glorification of exports.

One of the simplest generalisations of elementary economics is that the greater command over natural forces which marks economic progress is necessarily coincident with a decline in the proportion of our time which we are obliged to devote to the production of the necessaries of life. As we progress, we can give more and more time to the satisfaction of our more refined wants, which are very elastic, because we need give less and less to the satisfaction of the more elementary and coarse wants which we share with the beasts of the field, the birds of the air and even the worms which drag down rotten leaves to their larder, and the maggots which enjoy putrid flesh. "The desire of food," as Adam Smith said, "is limited in every man by the narrow capacity of the human stomach; but the desire of the conveniencies and ornaments of building, dress, equipage, and household furniture, seem to have no certain boundary." In the hundred and sixty years since his time we have discovered many wants which are even more elastic than those which he thought of, and the human stomach is no wider, though the tongue may be a little more dainty.

Just now there is more need than there has been in recent centuries for attention to this generalisation, because the increase of population in the civilised world is slackening, so that the number of stomachs threatens to become as stationary as their individual capacity, while at the same time the application of machinery and science to agriculture has been increasing its productiveness faster than usual.

Eighteenth-century thinkers like Paley, believing in the desirability of indefinite multiplication of the human species, might well have deplored this state of things, and have said that we were neglecting our opportunities by not producing as many persons as could be given what they called a "healthy subsistence,"

but we, who rightly or wrongly, believe that *homo sapiens* with bathroom h. & c., wireless and aeroplane, is something better than the healthiest gorilla, have no reason to complain.

Yet what do we find? All over the civilised world more talk than ever of the "decay" and impending "ruin" of agriculture, not because agriculture is failing in its task of providing food and many materials for manufacture, but because it is succeeding so well that the price of its products does not suffice to pay agriculturists as much as other producers are able to earn. This is a state of things which certainly calls for a remedy, and the true remedy clearly is to allow the relative poorness of remuneration to work out its own cure by the repressing influence which it will exert on the number of agriculturists. After all, it is by this kind of pressure all round that people are driven to produce what is wanted in something approximating to the right proportions. If people could produce as many golf-balls as they liked without reducing the price, we should be snowed under by golf-balls. By the fall of price as more is produced, the production of each thing is restrained to a reasonable amount. But instead of allowing agriculture to come under this very salutary regulation, all civilised countries, or at any rate all those about which I know anything, are engaged in strenuous efforts to "do something for agriculture."

In our own and in other "old" countries the "something" takes the form of subsidies and exemptions from taxes, while in some of the "new" countries it appears in the restriction of cultivation and the burning of crops already harvested. To grow crops and then burn them is idiotic, to restrict production by law is cumbrous and ineffective compared with allowing it to be restricted by low price, but neither of these plans is stupider than the subsidisation policy, which only tends to put more of the product on the market and thereby to cheapen it still further.

Economists have no right to wash their hands of the matter and say it is not their fault that the mind of the public is an Augean stable. It is their job to cleanse it, and they have had two hundred years to do it in. By this time they ought to have convinced the public that the fact that an industry produces a necessary of life, and is therefore in one sense an "important" industry, does not mean that expansion of its produce beyond a very definite limit is desirable. It may be urged, indeed, that, so far from cleansing the stable, the economists have really brought more dirt into it by giving the public the impression that agriculture is particularly liable to what they call the "law of

diminishing returns." What exactly they mean differs from author to author, and is not of much importance to our present purpose, but whatever it is has certainly helped to prevent the public from properly appreciating the fact that enormous improvements have taken place in the productiveness of agricultural industry, are still taking place, and are likely to take place at an even more rapid rate in the future. Failure to appreciate this fact has had much to do with the persistence of incapacity to realise that a decline in the relative or even in the absolute number of agriculturists is a sign of progress rather than of economic decay.

Of course recognition of the fact that there is a limit to the desirable expansion of the production in every industry is inherent in the theory of marginal utility, but that theory has never made much way among the general public, simple as it is, because instead of being expressed in plain language understood by the people, it has been treated as a classroom plaything to be illustrated by lines and curves on a blackboard, which, like the stone and wooden idols of the more degraded religions, come to be revered for themselves rather than for the things they were originally intended only to represent.

Someone may object that there is no worship of agriculture as a whole, and say the trouble is that each country wants to get more agriculture by diminishing the amount of agriculture in other countries rather than by increasing the whole amount. That is not, however, the whole truth and nothing but the truth, since it is quite certain that even if there were only one "country" in the world, that single country would still, in the present state of thought—or of whatever is mistaken for thought—be quite unduly solicitous about its agriculture. But even if it were true that anxiety about agriculture is not anxiety about agriculture in general, but only anxiety of particular countries lest their domestic agriculture should be reduced or extinguished by imports from abroad, that would make it a special case under my second heading, the worship of exports, to which I now proceed.

I scarcely suppose that anyone here will be inclined to deny that exportation of commodities is generally regarded by the populace as good, and importation as evil. The public realises in an obscure fashion that when individuals are trading with one another, each of them wants to get as much as possible for his products; his object is to get as much as possible with as little as possible expenditure of time and labour. But when they consider themselves as a whole, trading with persons outside their boundary, the individuals in each country seem to lose sight of

this entirely, and to imagine that the object of bargaining is to give, and not to get. They groan dismally if it appears that they are paying an unusually low price for what they buy from abroad and getting an unusually high price for what they sell to persons abroad, and if some exceptionally sane person ventures to point out that this means that they are receiving a larger volume of imports in exchange for a smaller volume of exports, they are reduced to utter despair. And if some foreign country suffering from the same strange delusion as themselves, that a good bargain consists in giving much and getting little, proposes to tax itself in order to give them something at a lower price, they regard this as a most unfriendly action, and take immediate steps to prevent the intention being carried out.

In their view the perfection of economic happiness would be attained by a country which exported large quantities of all kinds of commodities and received nothing whatever in return. Some approximation to this state is reached by countries which have got to pay huge amounts of reparations, since though they may be bound to pay gold, they buy the gold with the sweat of their brow translated into exports, and it is true that these countries do notseem to enjoy their position, and it is also true that the countries which have reparations and interest on war-debts to receive, do not seem very anxious to give them up, but this is not the result of reasoning, but only of healthy instinct. The sub-intelligentsia which tries to do the reasoning of the nations, holds that it is only the stupidity of "Kansas farmers" and the perverted self-interest of Ministers of Finance which stand in the way of a general recognition of the doctrine that if it is not exactly blessed to pay reparations, it is at any rate blank ruin to receive them.

Probably in modern times the principal support of this love of exports and hatred of imports lies in the popular belief that exports "give employment" to and imports take it away from the people of the country. The belief is not confined to the case of countries politically separated by having different governments and fiscal systems. It is held by the populace just as strongly in regard to towns and all other local divisions; the only reason we hear so little of it except in regard to countries is that inside the same country the taking away of employment from one area and giving it to another is seen to be at work in both directions. If Lancashire cotton goods are imported into Yorkshire, and that deprives Yorkshire of the employment of producing cotton goods for Yorkshire consumption, nobody deplores the sad case of Yorkshire, because everyone sees that Lancashire is getting

the employment of which Yorkshire is deprived, and most people can see that if Yorkshire complained of loss of employment in cotton manufacture, Lancashire could equally complain of loss of employment in woollen manufacture, so that, from the point of view of the whole country, the complaints would cancel out. But if Lancashire and Yorkshire were two different countries, this cancelling out would not take place, because Lancashire would treat the loss of employment in Yorkshire with complete indifference if not with some satisfaction, and Yorkshire would feel the same about the loss of employment in Lancashire. Each country, looking on the question from its own point of view, and believing that exports give employment and imports take it away, tries greedily to export and not to import, regardless of the influence of its policy upon other countries.

If we are to wait for a time when international feeling will be altruistic enough to make loss of employment abroad weigh as much as gain of employment at home, the youngest of us will be dead. What is required is a much more simple, vigorous, and convincing exposition of the fact that employment is only a means to the attainment of an end, which is the acquisition of goods and services, and that we trade with foreigners, as we trade with those whom we serve and those who serve us at home, not to give ourselves employment, but in order to get the things and services which we want more easily—cheaper, if you like—than if we produced them for ourselves.

Of late the love of exports and hatred of imports have found new support in the modern Balance of Trade theory, which would wilt away very quickly under the sunshine of simpler economics. This theory is sometimes spoken of as a revival of the Mercantile System, but that is a libel on the Mercantile System. The mercantile scheme was directed towards getting a net importation of gold and silver, and however absurd the ideal of an indefinite accumulation of those metals in a country may be, the fact remains that a store of them had some utility, and also a permanent value which could on occasion be turned to account in purchasing anything really wanted from abroad. But what the degenerate imitators of the old balance-of-trade theorists want, is nothing so sensible as a net importation of gold or anything else, but a continuous net exportation of capital. Whether interest and dividends on the capital so lent or invested abroad are paid or not they do not greatly care, since if they are not paid, it will be all the easier to keep the imports below the exports. If there is a net exportation of capital, the balance of trade or payments is said

to be "favourable," and if there is a net importation it is said to be "unfavourable" or "adverse," and in the "old" countries at least there is no pretence that these terms are to be understood in a Pickwickian sense; the "favourable" balance is distinctly held up as something to aim at and rejoice over when attained, and the "adverse" balance as something to be avoided and to be deplored when it occurs.

The old and the new theories of good and bad balances in foreign transactions have much in common. They both have their fetishes and their bogies. The fetish of the old is a net importation of precious metal, and its bogey a net exportation of such metal; the fetish of the new theory is a net exportation of capital and its bogey a net importation of capital. They are alike in proposing to satisfy their fetish and avoid their bogey in a way which shows that their exponents have been induced by the word "balance" to fall into a confusion between equation and causation.

The fetish of an indefinite accumulation of gold and silver was ridiculed by Hume and Adam Smith a century and a half ago; and the bogey of "losing" a good national currency or having it "drained away" was properly dealt with by the monetary writers of rather more than a century ago. But the countries which remain on the gold standard still fear that their hoarded gold is being lost or drained away if they see it being exchanged in any large quantity for other goods, or even used for the repayment of their debts, and so on every emergency they sit tight on it like the fraudulent bankrupts they are. Such weakening as is actually manifest in the position of the old fetish and the old bogey is due not so much to the arguments of the economists, which have never really penetrated the public mind, as to the abandonments of the gold standard which have been caused by the superstition of gold-worshippers. When a country is once on a paper standard, it becomes very difficult to be afraid of foreigners robbing it of its currency. Almost anyone can see that a paper currency does not get taken out of a country in large quantities to be held abroad, except on the rare occasions when the foreigners have a stronger belief than the people of the country that the value of the currency will rise, and almost anyone can also see that when this does happen the foreigners are usually wrong, so that the people of the country eventually profit by the transaction. The Germans certainly had no need to grudge the foreign speculators the milliards of marks which those misguided persons acquired in the years before 1924 under the impression that "the mark was so low that it was sure to go up"!

Moribund from whatever causes, the old fetish and bogey are being replaced by the new, which are no better in themselves, and are perhaps more difficult to exorcise because they are less clearly conceived. They have worshippers all over the world, and no doubt have had different origins in different countries. I am a little afraid that if Rhadamanthine justice is ever executed on us economists, I may get a stripe or two for having been a passive spectator at their birth in this country, instead of promptly endeavouring to smother them before they got into their cradle. Some twenty years ago, in temporary buildings on this very site, I was official supervisor of Mr. C. K. Hobson when he was writing his doctoral thesis on the *Export of Capital*, and—I say it with all the shame that is due—I failed to see and warn him that he was quite innocently and unconsciously conjuring up a new " balance " as misleading as the old. Not from any misapprehension, but simply because data for estimating the export of capital were even more meagre than those for estimating most of the other items in the account between people in the United Kingdom and people outside it, he reckoned up all the other items first, and got at the probable amount of the net export of capital as the difference between the two sides of the account as added up before the inclusion of import and export of capital. This, of course, was a purely statistical device of apparently the most harmless kind. If you know all but one of the items in an account of which the two sides are known to be equal, what more natural than to discover the amount of the missing item by the easy arithmetical process called subtraction? How was Mr. Hobson or I to know that the Board of Trade's adoption of the method a few years later would lead to the amount in question being generally regarded as a " balance " which must be either " in favour " of the country or " unfavourable " or " adverse " to it, like a customer's balance at his bank, and that, too, when the customer is not a business man who may borrow to make a profit, but an old woman who is living on her income from investments and to whom an overdrawn bank account is a sign of over-spending? Yet that is what actually happened, culminating—at least, I hope it culminated, but one never knows what heights of absurdity may be reached—culminating, I say provisionally, during the panic of the summer of 1931, when statesmen of the highest reputation for sobriety of thought went about declaring that the net importation of a few millions of capital must indicate that we were "spending beyond our means," "living on our capital," and "rushing inevitably towards national bankruptcy."

In the old countries the more benighted of the alarmists, talking in this way, completely overlook the fact that capital can be and is accumulated at home as well as invested abroad, and therefore imagine that if no net foreign investment is being made, accumulation has ceased, and that if foreign investments are being realised and the proceeds brought home, this shows that the national capital is being consumed. The less besotted, without going so far as that, think of the decline of foreign investment and its conversion into a minus quantity as a sign of at any rate *diminished* accumulation. They therefore have no hesitation in applying the old terms, "favourable," and "unfavourable," "adverse," or "against," not in a conventional sense, but in the sense in which they are equivalent to desirable and undesirable, just as the adherents of the older balance-of-trade theory used to apply them. In the new countries, more familiar with the importation of capital than with its exportation, the terms "favourable" and "unfavourable" seem to alarmists appropriate in this natural sense, because they regard importation of capital as "running into debt" (a thing of which most people have a horror) rather than as "raising capital" (which is highly respectable). In both classes of country the alarmists fail to see that whether it is desirable that the movement of capital should be inwards or outwards depends on the relation of home to foreign conditions. The so-called "favourable" balance may perfectly well be a sign of disastrous prospects at home and bright prospects abroad, and the so-called "unfavourable" balance a sign of expected disaster abroad and prosperity at home.

But this is not the worst of the muddle. The term "balance" itself, though it looks so respectable, applied to this item in the international trade account, is wickedly misleading. We are accustomed to think of the balance—that is, the balancing amount—in an account as not an independent item with its own special causes of increase and decrease, but as, so to speak, the passive result of the other items. The other items when put together produce it. For example, we compare our expenditure with our income, and if the income is the greater, we regard the difference as a balance which is the *consequence* of our having spent more or less than our income; we never dream of saying that the bigness of the balance has caused us to spend less. According to the old balance-of-trade theory, the net importation of precious metal was a balance of this kind. Its magnitude was not settled by the amount which the inhabitants of the country were willing to give goods and services for at a rate satisfactory to the people outside

who had gold and silver to dispose of, but was settled quite incidentally by the other items. The disastrous result of this mistake was that the politicians became persuaded that in order to get a net importation of precious metal they must undertake the regulation of all the other imports and exports so as to make the exports exceed the imports, and more than two centuries of absurd attempts to secure this end by fostering exports and discouraging imports followed.

Under the influence of the new balance-of-trade theory, just the same blunder has been made. Because the new balance was called a balance, the politicians of each country have been persuaded that it is not an independent item, but the mere arithmetical consequence of the other items, so that in order to get it they must do just what the adherents of the old theory did—that is, foster exports and discourage imports.

After long experience of the old dispensation, the more intelligent part of the world seemed to have learnt that if a country wanted precious metal, and was willing and able to pay for it, its ability and willingness to pay would immediately alter the other items in the trade account, so that the required balance would appear. Apparently every country, as represented by its government. has yet to learn, what is equally true, and one would think even more obvious, that how much a country invests abroad or borrows from abroad is not the passive result of the comparative magnitude of the other items in the international account, and that if there are reasons for change in it, that will cause the necessary changes in the other items. To give the simplest possible example, which is, or used to be, well known to the most elementary students, any wave of optimism about foreign investment compared with home investment will cause a rise of exports as compared with imports.

I admit that the world's present blindness is due in part to the dislike of reparations and repayment of war debts which not only exists all over the countries which are asked to pay, but is also felt elsewhere by all humane and sensible people, who recognise that international goodwill is worth more than tons of gold. Dislike of the payments has led to groundless asseverations of inability to pay, and these have often been founded on the childish proposition that there was no surplus of exports over imports out of which to pay. Childish, I call it, because it ought to be perfectly obvious to any grown-up person that if there is at the moment no such surplus, the payment will *make* one. When the Romans wanted the Egyptians to send them a tribute

of corn for their dole, they did not ask whether the Egyptians had an export surplus or not; they made them have one. If they had demanded not corn, but enough Egyptian paper money to buy that amount of corn, the export surplus would have appeared just as well, since to be of any use the Egyptian paper would have to be sent back to buy something from Egypt. And if the Romans had demanded the tribute in gold, of which the Egyptians had little or none, the demand would still have produced an export surplus, because the Egyptians would not have been able to get the required gold without offering exports for it. Moreover, if the Egyptians, when paying a half-year's tribute in gold, had alleged that they would not be able to pay any more such amounts because the Romans locked up the gold, and then in the next six months the Egyptian Government and their bank accumulated enough gold to pay a whole year's tribute, I think the Romans would have rightly regarded the Egyptians as very poor diplomatists and bigger liars than the Cretans.

But though dislike of tribute may have prejudiced millions against sound theory, and may also account for some of the silence of reputable contemporary economists, it must be a much weaker force in the long run than the prime mistake of the economists, from Ricardo downwards, in trying to make a special theory of international trade separate and different from the theory of trade within a single country. We want not excuses for, but an entire abandonment of Ricardo's monstrous assertion in his text that "the labour of one hundred Englishmen cannot be given for that of eighty Englishmen," and a frank acceptance of his better advised footnote in which what was afterwards christened "the law of comparative cost" is applied to the division of employments inside a country as well as between countries. We want an entire abandonment of the stupid insistence on international trade being "virtually barter"; of course, all trade is "virtually barter" when you drop the intervening money out of the picture and think only of persons producing one set of goods and services for other people and receiving another set from them in exchange. It is the intervention of money which turns barter into selling and buying, and far from eliminating money, international trade usually involves the intervention of not only one money, but two different moneys. And, above all, we want to get rid of the confusing assumption that the inhabitants of a country, continually changed by deaths and births and by migration, are just like a perpetual corporation.

It is not for me, born in 1861, to tell the present generation

how further to simplify the subject. If I had known how to popularise sound economics, I should have done it long ago in the time which I have had. It is now the job for some of you, and a job of enormous importance. All countries are trying, with considerable success, to reduce their imports by tariffs, and when they do not succeed as quickly as they would like, they resort to quotas and prohibitions. Many of them subsidise some of their exports, often doing it by indirect and concealed methods not for fear that their own people may object to giving gifts to the foreigners, but because they fear that the foreigner will destroy the effect of their subsidies by imposing import duties or embargoes. When by these operations they have reduced imports and exports alike without making much difference to what they call the balance of trade, each of them tries to effect its purpose by depreciating its own currency, not with the laudable object of reversing a tendency of that currency to appreciate in purchasing power, but in order to win an imaginary advantage over its competitors. Having by these means thrown international trade into dire confusion and greatly reduced its amount, they waste the capital of their taxpayers by spending scores of millions of borrowed money in buying foreign exchange and gold, in order, as their Finance Ministers explain, to counteract the wicked speculators whom they believe to cause violent fluctuations by buying their currency when it is low and selling it when it is high!

You may say you know all this, and that I ought to apologise for drawing your attention once more to the putrid, stinking mass. I do apologise to those who are really helpless in the matter, if any such are here. But I do not apologise to the others, but appeal to them to do more than they are doing to make economic organisation understood by the people. I appeal especially to the younger teachers to consider what sort of future they can look forward to if the popular English newspapers continue to get their readers to believe that at one and the same time the pound sterling may be worth twenty-twentieths of itself in London and Lisbon, thirty-one twentieths in Madrid, and only fourteen twentieths in Paris. Do not let them simply hold their noses and avert their eyes from the disgusting mess and run back to find peace and contentment in neat equations and elegant equilibria.

EDWIN CANNAN

CAPITAL AND THE GROWTH OF KNOWLEDGE

I

In popular discussions of the depression to-day, it is commonly alleged that because " the problem of production has been solved," —we live in a world of potential plenty,—the fault must lie in the processes of distribution. The convincing answer to this theory is that it confuses technical and economic problems of production. Technical problems of production (or at least many of them) have no doubt been " solved " in the sense that we can easily make as many hats, *or* as much butter, *or* as many books as we like. No technical difficulties bar the way to a rapid extension of production along any one of these lines taken by itself, but the economic problem of production arises because it is not possible at the same time to have as many hats *and* as much butter *and* as many books *and* as much of an almost infinite variety of other goods and services as we like. It is necessary somehow to choose between the wide variety of alternative types of production which is open to us, and to allot the limited supplies of the elementary factors of production in accordance with our choice. " Economics is the science which studies human behaviour as a relationship between ends and scarce means which have alternative uses." [1]

The practical solution of the economic problems of production is always being complicated by changes in the character and relative importance of the goods whose production it is desirable to organise. We are not here concerned with the effects of the changes in taste or fashion which are quite compatible with relative stability in the level of average productivity, but with the much more important changes which occur when productive efficiency is increased for any reason, and especially as a result of extensions of knowledge. And the process of solution, it will be suggested, is commonly retarded by a failure to realise that economic progress which rests upon growth of knowledge is likely to cause important changes in the relative importance of capital as a factor of production.

This question will perhaps be illuminated by a short not too imaginary sketch of world economic history. The form of the

[1] Robbins, *Nature and Significance of Economic Science*, p. 15.

sketch is suggested in part by the current habits of speech in New Zealand, where most public questions are discussed in terms of their reactions upon the welfare of the so-called primary and secondary industries. In the first stage of development, a stage in which large areas of the world still find themselves, effort is concentrated mainly on primary production, on agricultural and pastoral and similar occupations. This stage is often haunted by the fear of famine, and the Malthusian devil is something more than a bogey. Permanent improvements in methods of production are difficult, and slow, because of the difficulties of accumulating capital, difficulties which arise not, to any important extent, from lack of thrift in the ordinary sense of the term, but rather from sheer poverty.

It was mainly extensions of knowledge relating both to agricultural and to other types of production which led to the second stage, in which secondary or manufacturing production and the activities associated therewith began to predominate. Average standards of production were much increased throughout the whole Western world during the nineteenth century, and saving became relatively easy. Manufacturing production probably demands relatively more capital than agricultural production of comparable value, its processes are more roundabout, but the increase in productive capacity made it comparatively easy to supply what was needed.

The "tertiary" stage, on the threshold of which the more advanced countries should now be finding themselves, begins when, in the popular phrase, the problems of production in manufacturing seem to have been solved. It then becomes possible to divert an increasing proportion of human time and effort and of capital equipment into the production of goods and services, which are not in the ordinary sense of the words to be included in either of the categories of primary or of secondary production, namely, facilities for travel, amusements of various kinds, personal and intangible services, flowers, music, art, literature, science, philosophy and the like. These things are, of course, not unknown in either the primary or the secondary stages. Many of these services are those which Adam Smith described as unproductive, and it is possible that their relative importance was greater in the primary than in the secondary stage. But when certain standards of efficiency in primary and secondary production have been reached, it is desirable that Adam Smith's "unproductive" services should occupy a rapidly increasing proportion of the time of the community. It is the growing

importance of these services which characterises the tertiary

II

During the secondary stage the tendency towards more and more roundabout methods of production, on which the Böhm-Bawerkian theory of capital lays so much emphasis, is especially obvious. Böhm-Bawerk insists that the law that the more roundabout methods of production are in general, if wisely chosen, the most productive has its only basis in "the experience of practical life. Economic theory does not and cannot show a priori that it must be so; but the unanimous experience of all the technique of production teaches us that it is so."[1] Each detour in the process of production enables us to make use of an additional auxiliary force which indirectly helps us more efficiently to reach our desired end. As the average period of production lengthens, *i.e.* as the process of production becomes more capitalistic or roundabout, the productivity of the process is also likely to increase. And what is true of single acts of production can equally be applied to the whole of a national economy. "The more capitalistic the production is, the smaller will be the proportion of the year's productive powers consumed within the year, and the greater the proportion invested in intermediate products that will come to maturity as finished goods only in future years."[2] A consideration of the variations and changes in the character of demand which economic progress based upon the growth of knowledge makes possible suggests, however, some doubts as to whether it can safely be assumed that when high standards of productivity have been reached, economic progress invariably, or even in general, means a lengthening of the average period of production for the national economy as a whole, a higher degree of capitalism in the Böhm-Bawerkian sense. When the roundaboutness of the processes of production in particular cases has been extended so far that our wants for their products are satisfied to such an extent that we prefer to devote our energies to the production of new things, it is by no means certain that the degree of capitalism involved in the production of the new things will be such as to lengthen the average period of production for the national economy as a whole. It is an empirical truth that as we pass from the primary to the secondary stage of production the average period of production

[1] *Positive Theory of Capital*, Smart's translation, p. 20; Polack's translation, p. 24.

[2] Polack, pp. 208–9; Smart, p. 91.

has tended to lengthen, but it cannot safely be assumed that economic progress means merely producing more and more of the commodities already being supplied, or even of producing new commodities the character of whose production will at least be as capitalistic as the processes needed for the old commodities.[1]

If we were to arrange commodities, goods and services, in the order which would correspond to the order in which they were included in the expenditure programmes, either of individuals or of groups, as their wealth steadily increased, it is by no means certain that the degree of importance of capital in the production of the goods which appeared in the latter stages would be greater than the importance of capital in the production of the goods which appeared in the earlier stages. Increases in productivity make possible the satisfaction of entirely new wants, and it is quite possible that the periods of production suitable for them will be much shorter than for the old, so that the general average may be reduced, or, what comes to the same thing, the proportion of gross income that has to be saved in order to keep capital equipment intact and in good working order will vary according to the character of the goods produced. If the goods which meet the less urgent needs which can be satisfied as a result of technical progress require shorter production periods, then the proportion which must be saved if capital equipment is not to be left derelict will diminish as wealth increases. In other words, a relatively small net increase in savings may give as good a return in real income in a wealthy community as a relatively big saving would in a poor community. If saving is still practised

[1] Böhm-Bawerk does not indeed entirely ignore the possibility of changes in the objects of production, but he tends to exclude these changes from consideration. "For any important change in the objects of production," he says, "which would mean that men in future would turn towards other types of consumption, would desire them and produce them, we have no *point d'appui* in our suppositions. We know that in general, even if there are large dynamic changes in a national economy, the relative changes in the types of goods produced are only small, and we have, moreover, excluded from our hypothesis all dynamic changes other than the increase of existing capital. We shall therefore confine our attention to simple changes in the method of production. Some new types of material goods may well be produced fortuitously and sporadically, but essentially men in general will continue to produce the same material goods as they have produced hitherto, but by other methods of production" (Polack, pp. 336-7). It seems, however, impossible to accept this hypothesis. If production is increased, either as a result of increase of capital, or for any other reason, new types of goods, either material or immaterial, *must* inevitably appear, and not merely fortuitously or sporadically. The hypotheses that there should be dynamic changes due to increases of capital and that at the same time men should continue to produce the same material goods as they have produced hitherto are, in fact, contradictory.

at the rate which was appropriate to maintain the capital equipment required in the earlier stages of production, and especially if the savers show reluctance to allow their capital to enter the new types of production which are appropriate to the tertiary stage of development, dislocation is inevitable.

III

If we consider the production of any given commodity, the Böhm-Bawerkian theory that "if we choose wisely more roundabout methods of production, we generally receive an increase in output, that is to say, we obtain more and better products with the same expenditure of the original productive forces," [1] may be regarded as sufficiently established, as well as its converse, that if we desire an increase in the output of any commodity, it will usually be necessary to resort to more roundabout methods of production, in which the importance of capital as a factor of production will increase. But this does not justify the conclusion that if productivity in general is to increase, the relative importance of capital as a factor of production must inevitably increase. It may do so, but it will depend on whether in the newer products which economic progress makes possible capital is likely to be as important a factor as in the old. It may be true that new inventions usually require a longer period of production, but when the advantages derived from the use of such inventions have been pushed to a certain stage, we are then likely to turn to products of quite another type, where it is possible that short production periods are appropriate, so that the average for the whole field of production may be diminished instead of being increased. An increase in the supply of capital may make possible and profitable the use of more prolonged methods of production, because knowledge which was formerly sterile on account of shortage of capital can now be made fruitful, but it is also likely to make possible the use or the more intensive use of short methods of production which are useful for producing goods and services which formerly were inadequately supplied because other things were more urgently needed.[2]

[1] Polack's trans., p. 279.

[2] Even if the average period of production for each commodity were to be lengthened simultaneously, it would not necessarily follow that the average period for the whole economy would be lengthened, any more than an increase in the average wage paid over the whole field of industry is a necessary consequence of an increase in the wage paid for each kind of work. The result in either case depends on the relative importance of the items whose sizes increase. Böhm-Bawerk maintains (Polack, pp. 358-9) that even in the case of inventions which make possible a shortening of the period of production the capital thus

It is difficult to make any confident general statement about the change in the character of the need for capital, in the average length of the period of production, which will become necessary as technical progress makes it possible to extend effective demand to new goods and new services. But it seems reasonable to expect some variation in capital demand as we pass from the secondary to the tertiary stage of production. There is certainly no a priori reason for supposing that the relative importance of capital in the production of "tertiary" products will be the same as for the production of ordinary manufactured goods, and therefore as the importance of "tertiary" products as compared with manufactured goods becomes relatively greater, we might expect some change in the relative importance of capital for the field of production as a whole. During recent years improvements in productive methods have certainly been important in practically every field of economic activity, and the natural, indeed the inevitable result of such improvements is to let loose an increasing proportion of human energy and of capital equipment for the production of "tertiary" goods. It is not easy to get any precise or accurate picture of the situation as a whole, but it is not unlikely that the capital requirements for the newer types of production, which increased productive capacity makes possible, are often relatively less than for the articles, the production of which constituted the outstanding economic advance of the last century.[1]

released for other purposes will tend to be applied in lengthening the period of production in other parts of the field. But if the new commodities which it is now possible to produce in larger supply are such that the relative importance of capital as a factor in their production is very small,—and this is probably true of many of the commodities which are suitable to the tertiary stage of production,—the tendency for the average period of production for the whole economy to lengthen may be suspended for a long time.

[1] Considerations such as those raised here make it difficult to attach any intelligible meaning to the concept of a uniform rate of economic progress as defined by Cassel and others. "In order to be able to provide," Cassel says, "for a uniformly growing consumption, we must in a uniformly progressive economy have a uniformly growing supply of elementary factors of production" (*Fundamental Thoughts in Economics*, p. 95). But progress inevitably means the addition from time to time of new items to the stream of products, and even if we surmount the difficulties involved in determining whether the stream is expanding at a uniformly progressive rate or not, when such new items are added, we are certainly not justified in assuming that in order to produce the new items the supply of each of the elementary factors needed for the new types must also expand at a uniform rate. As Cassel has pointed out, the assumption underlying the Ricardian theory of value, that "the use of capital required in every branch of production could be assumed to be proportional to the amount of labour required," was too daring (p. 108). But any assumption that the use of capital required in every branch of production can be assumed to increase more or less

The point raised here is related to, though not identical with, the problem discussed by Cannan [1] of the changes in the relative importance of the demands for labour and for the use of property. "Increase of income," he says, "is often a cause of change of demand as between different commodities and services, and it may, on the whole, perhaps make people inclined to spend a larger proportion of their income upon the use of lands, houses, vehicles, pictures and such things and a less proportion in ways which tend to raise the value of work as compared with property. But," he adds, "the case is far from strong." The suggestion here made is that where increase of income is general, and after it has passed a certain point, not clearly definable, it is quite probable that the new demands which general increase of income make effective will, in fact, be directed towards commodities which require, as compared with other commodities, relatively less capital and relatively more labour.

IV

It does not follow, because the relative importance of saving as an essential factor in maintaining standards of production may decline as a result of increased efficiency making it possible to open up new kinds of work in which capital is relatively less important, that there is likely to be a positive excess of saving. But dislocation is likely to occur such as might at first sight suggest an excess of saving, if the newer channels are not opened up with reasonable speed. People sometimes dislike putting capital into the industries which are suitable to the tertiary stage of production, and insist on pouring additional capital into the industries which are characteristic of the secondary or even of the primary stages, or, what comes to very much the same thing, they dislike the lower rate of interest which a slackening of the need for capital is likely to bring with it, and in consequence endeavour to keep their capital uninvested until more attractive opportunities are open, or else uncritically devote their savings to enterprises (*e.g.* gold-mining) where the returns seem to be

steadily as productive efficiency increases may be scarcely less remote from the facts. There is probably a marked tendency in that direction at certain stages of economic progress, but whether the tendency will be maintained or reversed depends largely on the character of the demand which has to be satisfied when economic progress enables us to explore new habits of consumption. If we prefer commodities or services in whose production capital does not play a large part,—and there are certainly wide ranges of choice open to us in which this would be possible,—then the tendency will be reversed.

[1] *Wealth*, p. 178.

high, largely because they are normally associated with a considerable risk premium. There is some reason to believe that both these influences are, in fact, operative and important, causing incidentally a considerable wastage of capital. Evidence of the same conservatism of which Hobson complains in consumption is certainly not lacking in the control and direction of investment. Capital, we think, *ought* to go into the staple industries, and though few individual investors deliberately and of set purpose guide their investment practice on the grounds of their estimate of the relative social significance of industries, instead of upon estimates of probable gain, a general background of sentiment, or even a definite system of institutions may have the effect of diverting into the older staple industries a disproportionate share of the new supplies of capital which are coming forward. In countries like New Zealand, for example, everybody agrees that primary production is the foundation of the country's economic organisation; there is a good case for organising some substitute for agriculture which will serve a similar purpose in the distribution of capital to that served by the joint stock company in some other departments of industry, but the permanent importance of primary production is so much exaggerated that this excellent case has in practice been allowed to justify a diversion, as a result of the Government acting as a middleman between farmers anxious to borrow and lenders attracted by the security of a Government loan, into agriculture of supplies of capital which can now be seen to have been excessive.[1] Similar prejudices in favour of established industries,

[1] The prejudice in favour of primary industries as a likely absorbent of labour which has proved to be superfluous elsewhere is shown by people of the most divergent political colours, and is doubt the result of mental habits deeply ingrained by centuries of constant dread of famine. The idea is apparently part of the economic programme of the German Nazis; it is an article of faith with almost every influential section of public opinion in New Zealand; the authors of the Report of the British Liberal Industrial Inquiry believed that "the remedy for the present unsatisfactory position of British agriculture is the same as that suggested in the case of our great export industries—the taking of such steps as will secure an increased net return per head of those engaged. The resulting increased product per acre and per head will make possible a proportionately increased return to those engaged, whilst at the same time leading to an increase in the area under cultivation and to an increase in the numbers engaged" (pp. 326-7), and Professor J. D. Black, Chairman of the Advisory Committee on Social and Economic Research in Agriculture of the Social Science Research Council, believed that "it is easy to conceive of a different working of our so-called competitive system which would give us more farmers and better rewards at the same time" (*American Economic Review*, Supplement, March 1926, p. 138). While there is so much difficulty in convincing people that the growth of knowledge on which economic progress depends inevitably means a reduction in the relative importance of primary production

of continuing to produce in the future precisely the same kinds of things as have been produced in the past, cause further waste of capital, through the erection of tariff barriers which make investment along the old well-tried lines seem at least for a time to be profitable.

The difficulties of identifying the new demands for the satisfaction of which it is desirable to provide capital as productive capacity increases are undoubtedly greatly increased by the instability of demand which prosperity inevitably brings with it, and which has already been shown to be an important factor complicating the solution of current economic difficulties.[1] It is not safe, as many rash investors in temporarily popular amusements in recent years have discovered to their cost, to assume that any industry which for a time offers the prospect of a high return is an appropriate field for extensive investment. The instability of demand brings with it a risk of a somewhat different type from those with which investors in the past were accustomed to deal. But though the existence of such risks in part explains the slowness with which capital flows into the appropriate new channels, it does not in any way mitigate the effects of the dislocation which an excessive accumulation of capital elsewhere is likely to cause.

V

The reluctance of investors to accept low interest rates is also important and closely associated with their reluctance to realise the necessity for encouraging the growth of new types of industry. Interest rates are frequently much less flexible than wage rates or labour costs, and even when the conditions of supply and demand for capital justify lower rates, the returns which seem to be promised to investors in the older industries often continue to be relatively high. So long as this is so, capital is likely to continue to flow in those directions long after it has ceased to be necessary. Our error under such circumstances is less that of the inhabitants of the isolated island who built one enormous machine, but failed to provide the free capital neces-

as a source of employment, is, in fact, wasted if this reduction does not occur, it is not surprising that similar misapprehensions concerning the necessity for changes in the distribution of capital cause serious dislocation, especially if there is reason to believe, as has been suggested here, that in some of the newer types of production which economic progress makes possible, the relative importance of capital as a factor of production may be smaller than in the old.

[1] Cf. Loveday, *Britain and World Trade*, pp. 84–112.

sary to work it,[1] than that of people who insist upon wastefully duplicating capital equipment, which, relative to the effective demand of the community, is already adequately supplied. The dislocation which such errors cause is likely to be the more serious when the rate of population growth is slackening.

The causes of the present general reluctance to invest are obviously complex, but unwillingness to adjust states of mind to the necessity for a permanently reduced level of return on capital is not unimportant. One reason why long-term money rates fell so slowly in 1929 and 1930, it has been said, was "probably that investors had for many years been used to considerably higher returns on their capital than before the War, and had come to regard this high level as natural and normal. Hence they were averse from accepting a lower yield, and preferred to keep their money on short term in expectation of some more promising future opening."[2] The ultimate result of reluctance to invest is in many cases complete disappearance of the capital in question, the rate of interest being maintained by methods not unlike those adopted by the people who burn coffee or wheat, or dump surplus fish back into the sea.

The instability of demand associated with increased prosperity is partly the result of untrained public taste, and we may eventually conclude that these causes of dislocation can best be controlled by some sort of public authority, which will provide communistically certain of the services which are appropriate to the tertiary stage of production. It may indeed be found that a communist organisation of such services is an essential condition for the maintenance of whatever is desirable in an individualist organisation in other parts of the field of production. Already, of course, important parts of the community's capital are in most countries utilised in this way. The growing importance of organisations like the Rockefeller and Carnegie Foundations in America, the Carlsberg Foundation in Denmark, and similar institutions elsewhere suggests another parallel line of development. Economic progress should make it easier, it certainly makes it more desirable, to devote a larger proportion of the

[1] Hayek, *Prices and Production*, p. 84.

[2] *Course and Phases of the World Depression*, pp. 225-6. At the present time in New Zealand, movements in the capital market are said to be most active in connection with Government bonds and gold-mining shares. Investors look askance at ordinary commercial propositions which offer only a moderate return on capital invested; that their shyness cannot be completely explained by nervousness about the nature of the securities offered is shown by the marked stimulus of interest in mining ventures which are notoriously risky.

world's resources to the search for knowledge. Scientific research is not, however, a service which can easily be organised on the basis of a commercial demand. The Rockefeller and Carnegie Foundations offer an alternative method of organisation. Part of the community's savings are in effect abstracted from the normal channels of investment in which they would otherwise tend to flow, and are instead made available for persons who are presumed to be skilled in the search for knowledge.[1]

That there is an intimate, organic connection between the processes of production and the processes of consumption, is, of course, obvious, if not commonplace. But the practical consequences of this organic relationship are seldom sufficiently considered or understood. As productive efficiency increases, it is inevitable, if the demands of consumers are to remain the controlling power, that the character of the goods produced will change at the same time. And with the change in the character of production, the distribution of labour among various types of work and the character of capital demand are certain also to change. Most people to-day agree that recovery from the depression is delayed by the stiffnesses and rigidities of certain parts of our economic organisation; among these stiffnesses and rigidities it is desirable that much more attention should be given to the general reluctance to admit that changes in the character of production are likely to cause changes in the relative importance of capital as a factor of production, and are certain to cause changes in the relative importance of the demand for capital forthcoming from different types of industry. Recovery from the depression is delayed by the general insistence that capital should be directed into the same channels as in the past. The progress of knowledge has made it desirable to change the relative importance of these channels, and any theory which fails to emphasise the necessity for these changes must be condemned as inadequate.

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[1] Cf. Hawtrey, *Economic Problem*, pp. 304–5.

A DISCONTINUOUS COST CURVE AND THE TENDENCY TO INCREASING RETURNS

THE average cost of production has generally been assumed to be a continuous function of the size of the output. I propose in this article to examine a hypothetical case where this condition no longer prevails and to consider its effects in connection with the problem of increasing returns.

§ 1. Let us first make certain simplifying assumptions with regard to the factors of production. We will suppose that there are only two types of factor; one a fixed plant F, and the other a composite variable factor V. $\phi(x)$ is the quantity of V which is combined with one unit of the fixed factor to produce an output x of P. The unit cost of the variable factor is regarded as constant and equal to p_v; the employment of each unit of fixed plant entails a fixed outlay of p_f for upkeep and running expenses. Let p represent the unit cost of product P.

At successive stages as the output is increased, additional units of the fixed plant F will be introduced.

We may assume that both the first and second derivatives of $\phi(x)$ with respect to x are positive; this expresses the fact that the efficiency of the fixed plant F decreases as the output increases, and it is this increasing cost element that makes it profitable periodically to introduce additional units of F.

For the purposes of illustration we may suppose $\phi(x)$ to be of the form $ax^2 + bx$,—one of the simplest functions which satisfies the conditions that $\phi'(x)$ and $\phi''(x) > 0$. [Economic considerations justify the omission of the constant term; a zero quantity of the variable factor will be used to produce a zero output of P.]

It is clear that under these assumptions it will always pay the producer to distribute his output equally between the various units of F.

We have a succession of cost curves corresponding to the varying number of units of F used in production. The equations of the total cost curves are of the form

$$ {}_{n}px = np_f + np_v\phi\left(\frac{x}{n}\right) \quad (n = 1, 2 \ldots) \quad . \quad . \quad . \quad \text{(i)}$$

The equations of the corresponding unit cost curves, of the form

$$ {}_{n}p = \frac{np_f}{x} + \frac{np_v}{x}\phi\left(\frac{x}{n}\right) \quad (n = 1, 2 \ldots) \quad . \quad . \quad . \quad \text{(ii)}$$

where ${}_np$ represents the unit cost of P when n units of F are employed, and x is the total output.

The two series of curves are shown in Figs. I and II. It will pay to introduce a new unit of factor F when the total cost of

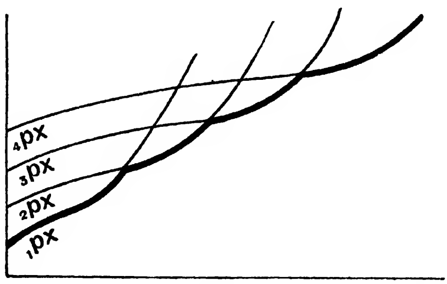

Fig. I.

production of an output x is the same with an additional unit of F, as it is without that unit. The additional units of factor F are therefore introduced at the points of intersection of curves ${}_npx$ and ${}_{n+1}px$ in Fig. I, or curves ${}_np_1$ and ${}_{n+1}p$ in Fig. II.

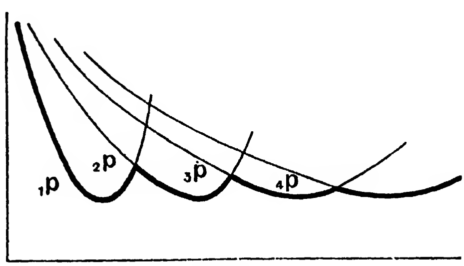

Fig. II.

The total and unit cost curves for the product P will be of the forms indicated by the heavy lines in Figs. I and II. They consist of the sections of the successive cost curves between their points of intersection.

§ 2. We may now examine further the shape of the unit cost curve for P (heavy line) when $\phi(x)$ is of the concrete form $ax^2 + bx$.

The total cost when n units of F are used is

$$ {}_npx = np_f + np_v\left[a\left(\frac{x}{n}\right)^2 + b\left(\frac{x}{n}\right)\right] \quad . \quad . \quad . \quad \text{(iii)} $$

The corresponding unit cost is

$$ {}_np = \frac{np_f}{x} + p_v\left[\frac{ax}{n} + b\right] \quad . \quad . \quad . \quad . \quad . \quad \text{(iv)} $$

The condition for minimum cost is

$$\frac{d_np}{dx} = 0 \quad \text{i.e.} \ -\frac{np_f}{x^2} + \frac{ap_v}{n} = 0$$

$$\therefore \quad x_{mn} = n\sqrt{\frac{p_f}{ap_v}} \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad \text{(v)}$$

where x_{mn} represents the minimum point of the unit cost curve ${}_np$.

The interval between successive minimum points on the unit cost curve is

$$x_{mn} - x_{m(n-1)} = \sqrt{\frac{p_f}{ap_v}}, \text{ a constant} \quad . \quad . \quad . \quad \text{(vi)}$$

By substituting the value of x from (v) in equation (iv) we find the minimum unit cost where n factors F are used is

$${}_{mn}p = 2\sqrt{ap_vp_f} + bp_v, \text{ a constant} \quad . \quad . \quad . \quad \text{(vii)}$$

Thus all the successive minimum points of the unit cost curves lie on a horizontal straight line.

Next we will deal with the points at which successive units of factor F are introduced.

The nth unit is introduced when

$$np_f + np_v\left[a\left(\frac{x}{n}\right)^2 + b\frac{x}{n}\right] =$$
$$(n-1)p_f + (n-1)p_v\left[a\left(\frac{x}{n-1}\right)^2 + b\frac{x}{n-1}\right] \text{ from (iii).}$$

i.e. where
$$p_f = \frac{ap_vx^2}{n(n-1)}$$

$$x_{in} = \sqrt{\frac{n(n-1)p_f}{ap_v}} \quad . \quad . \quad . \quad . \quad . \quad \text{(viii)}$$

[x_{in} denotes the output at which nth factor F is introduced.]

The interval between the points at which the *nth* and $(n + 1)$th units of F are introduced—

$$x_{i(n+1)} - x_{in} = \sqrt{\frac{p_f}{ap_v}}\left(\sqrt{n(n+1)} - \sqrt{n(n-1)}\right). \quad . \quad \text{(ix)}$$

It can be shown that this interval decreases as n and the output increase, and, moreover, that as n becomes very large, in the limit it approaches $\sqrt{\frac{p_f}{ap_v}}$,—the interval between the successive points of minimum cost [cf. vi].

By substituting the value of x from (viii) in the unit cost

equation (iv), we find the unit cost of P where the nth unit of factor F is introduced is

$$ {}_{in}p = (2n-1)\sqrt{\frac{ap_v p_f}{n(n-1)}} + bp_v \quad . \quad . \quad . \quad \text{(x)} $$

It can be shown that ${}_{in}p$ decreases as n increases, and that as n becomes very large it approaches as a limit $2\sqrt{ap_v p_f} + bp_v$, the constant minimum of the successive cost curves. Thus, when the output is very large the unit cost curve of P approaches a horizontal straight line.

It can also be shown that as n becomes large the points at which additional units of F are introduced approach the mid-points between the successive minima.

§ 3. We now have a fairly exact idea of the cost conditions of producing P, under the given simplifying assumptions. We may recapitulate the economic results obtained so far, as follows:

(1) The minimum unit cost of production is independent of the number of units of fixed plant employed.

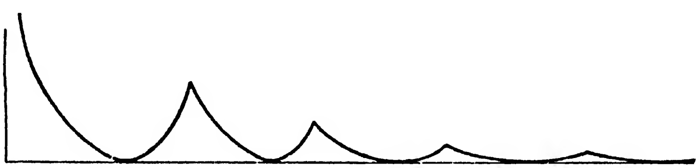

Fig. III

(2) The points of minimum cost where successive numbers of units of fixed plant are employed occur at regular intervals of output.

(3) The unit cost at which it pays to introduce a new fixed factor decreases as the scale of output increases, and ultimately approaches the constant minimum unit cost.

(4) Successive units of fixed plant employed reach their optimum output (*i.e.* minimum unit cost) at increasingly earlier stages as their number increases, and in the limit the optimum point is reached half-way between the introduction of consecutive units (Fig. III).

§ 4. These results may now be used in attempting an approximation to the next stage of complexity. For this purpose we shall regard the finished product of the simpler case as a semi-finished product which has to undergo a further machine process before it is ready to be placed on the market. This assumption is the same as though we supposed the unit cost of

the variable factor V to be no longer constant but of the discontinuous form that we have shown the unit cost curve of P to be.

In the cost curve ${}_n p = \frac{n}{x} p_f + \frac{n}{x} p_v \phi\left(\frac{x}{n}\right)$ instead of the constant p_v, we have a variable and discontinuous function, incapable of being exactly described by any single expression. In order to give an intelligible meaning to the cost expression ${}_n p$, therefore, we must find some continuous curve which will most fairly represent the course of the discontinuous curve.

It is possible to pass a continous curve through the average ordinate of each section of the discontinuous curve half-way between its consecutive minima [1] (see Fig. IV).

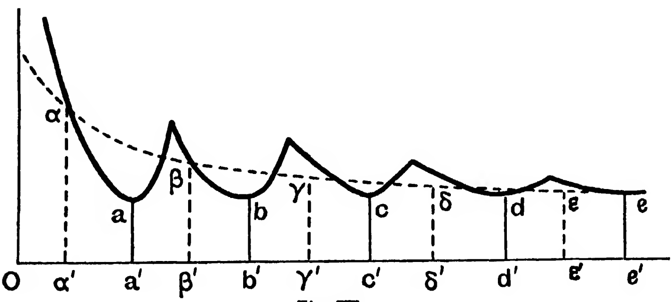

Fig. IV

Thus the curve $\alpha\beta\gamma\delta$ . . . is such that the rectangles $Oa' . \alpha\alpha'$, $a'b' . \beta\beta'$, $b'c' . \gamma\gamma'$ . . . etc. are respectively equal to the areas subtended by sections of the curve between its beginning and a, a and b, b and c . . . etc., where α', β', γ' . . . are the mid-points of these sections.

This curve would seem to describe best the trend of the cost of producing the semi-finished good V, and can conveniently be incorporated as an element in the unit cost of producing the finished product P. The trend curve decreases continually at a decreasing rate and is asymptotic to the horizontal line of constant minimum cost.

Now the effect on the discontinuous cost curve of P of replacing the constant p_v by such a decreasing function will clearly be that the minimum points will no longer lie on a

[1] The equation of the curve where $\phi(x) = ax^2 + bx$ is

$$p = ap_v x \log \frac{2x + \sqrt{\frac{p_f}{p_v}}}{2x - \sqrt{\frac{p_f}{p_v}}} + \sqrt{ap_v p_f} + bp_v.$$

horizontal straight line, but on a descending concave upwards curve (Fig. V).

We might again draw a trend curve through this discontinuous curve, so that were there yet a third machine process in production, the cost curve of the finished product would descend even more steeply than before. There thus seems to be a tendency to diminishing costs which increases as the process of production becomes more elaborate.

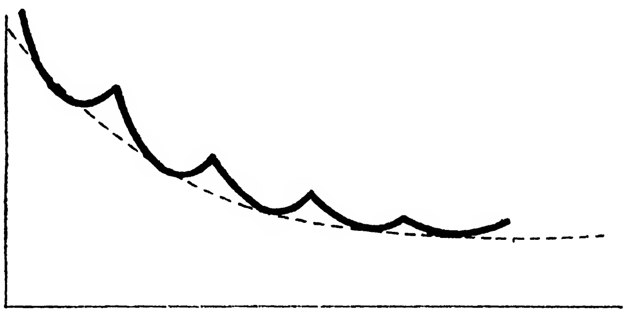

Fig. V

§ 5. It must be emphasised that the cost curve with which we are dealing is essentially a short-period curve—it takes into account no new inventions or reorganisations which might be introduced over a long time; it assumes production to be carried on in an exactly similar method, whatever the scale of output. We here come up against the often repeated opinion of Marshall, that a short-period decreasing cost, or normal supply price curve is, if not non-existent, at least extremely improbable.[1]

This belief can be largely accounted for by Marshall's definition of the law of increasing returns: "An increase of labour and capital leads generally to improved organisation, which increases the efficiency of the work of labour and capital" [*Principles*, p. 318]. It is thus clearly a long-term conception only, and not to be confused, as Marshall says, with the economies of "running full." He must assume that a business can always "run full" if it wants to, and that if its plant is not fully occupied, the reason must be found in some temporary slackness of demand rather than in the natural conditions of production.

In the example we have been considering, if we look at the cost curve drawn in Fig. V, we may agree with Marshall in not admitting as a case of increasing returns the downward slope of any section of the cost curve previous to reaching a local minimum

[1] Cf. *Principles*, 8th ed., pp. 370, 460, 501, 805.

point; we may say that this is due to the machines *F* not being worked at their optimum output for some very temporary reason. But what are we to say of the downward sloping trend of the successive minimum points? This is due to the fact that the average cost of the intermediate products in various earlier stages of production tends to decrease with an increase in their output; although the machines *F* may be running full (and those should be the only ones that Marshall should exclude in his law of increasing returns) it is unlikely that the amount of the intermediate product required to feed them should be that which can be produced at a minimum cost, since the machines used in earlier stages cannot also always be running full. If the output of *P* has to be increased, the manager should, according to Marshall, jump at once from the optimum point where he is working to the next optimum point on the curve. This is not likely to involve at the same time an optimum point on all machines used in more elementary stages; but, as the total output increases, the departures from this optimum line become less and less. It is only where the scale of production is extremely large that these departures become negligible and we reach a position of constant costs. It would seem therefore, that, apart from the forbidden economy of running full, there is an inherent technical advantage in such a case to be derived from an increased output; the increasing returns are admittedly of the nature of a probability, but they are none the less real and due to the technical discontinuities of production and not to any avoidable inefficiency on the part of the producer.

§ 6. Marshall's neglect of the short-period decreasing cost curve was evidently due partly to a serious difficulty which he thought that it would involve. He introduces this difficulty [1] in a note on p. 459, *Principles*. "Some, among whom Cournot himself is to be counted, have before them what is in effect the supply schedule of an individual firm; representing that an increase in its output gives it command over so great internal economies as much to diminish its expenses of production; and they follow their mathematics boldly, but apparently without noticing that their premises lead inevitably to the conclusion that, whatever firm first gets a good start will obtain a monopoly of the whole business of its trade in its district. While others, avoiding the horn of this dilemma, maintain that there is no equilibrium at all for commodities which obey the law of increas-

[1] References to previous discussions of this problem are given by Mrs. Robinson at the beginning of her article in ECONOMIC JOURNAL, December 1932.

ing return; and some, again, have called in question the validity of any supply schedule which represents prices diminishing as the amount produced increases." Marshall himself, as we have seen, may usually be numbered among the latter. On this particular page, however, he refers to the conception of the representative firm as the true means of avoiding the horns of the dilemma; a decreasing cost curve should not be attributed to a particular firm at one moment, but only to the industry as a whole over a long period of time. In other words, it is no solution at all of the problem of the short-period individual descending supply schedule.

The fact, however, that under conditions of abstract pure competition there can be no long-period equilibrium if individual firms are working under conditions of decreasing costs, does not in itself seem a sufficient reason for denying that such decreasing costs can exist. There are two possible alternative courses; either we can say that abstract pure competition does not exist, or else we can say that long-period equilibrium does not exist; and we should be supported in either case by the fact that neither condition is to be found in real life.

It has lately been suggested [1] that equilibrium where competition is imperfect—where the demand curve confronting a single producer is not infinitely elastic—can be obtained only if the individual cost curve is a decreasing one; Mrs. Robinson even goes so far as to suggest that such imperfections of the market actually *cause* the costs of production to decrease.[2]

The case which Mrs. Robinson considers, where, owing to the rare nature of the market imperfection and the complete absence of frictions or transfer costs, the producer enjoying a semi-monopolistic position is unable to reap any benefit from it in the form of monopoly profits, is demonstrated to be one in which a long-period equilibrium is compatible only with decreasing costs. In the more probable cases, where the monopolistic competitor benefits from his position by making more than normal profits, an equilibrium is possible whether costs are increasing, decreasing or constant (so long as average costs do not decrease faster than the demand price).

It seems, therefore, that if compatibility with long-period

[1] Cf. R. F. Harrod, ECONOMIC JOURNAL, December 1931, and Mrs. Robinson, ECONOMIC JOURNAL, December 1932.

[2] Cf. *loc. cit.*, p. 545: "By these assumptions conditions are postulated in which, if competition were perfect, the industry would be producing at constant supply price." And yet the cost curve drawn on p. 548 does not represent constant costs.

equilibrium is to be the criterion of existence of any economic condition—as Marshall and Mrs. Robinson suggest—we may "follow our mathematics boldly" and allow that in the short period, decreasing costs are as necessary and as justifiable as increasing costs.

In fact, however, there is no reason to suppose any such direct connection between the technical conditions of production which determine the shape of the cost curve, and the necessary conditions for a long-period equilibrium corresponding to the existing state of demand. The cost curve, at least for a single commodity, may be examined independently as in this paper, and according to the shape which it assumes, together with the nature of the market in which the commodity is to be sold, the price and output which result may or may not conform with the conditions of an equilibrium. M. F. W. JOSEPH

SAVING AND HOARDING

§ 1. In a future article I hope to examine certain aspects of the relation between saving, the rate of interest, and the course of industrial fluctuation. But since the first of these concepts is a troublesome one, I propose to devote a preliminary article to explaining and illustrating the meaning which is here attached to it.

I assume the existence of a period of time, to be called a " day," which is finite but nevertheless so short that the income which a man receives on a given day cannot be allocated during its course to any particular use. A man's disposable income—the income about which the question arises on any particular day as to whether it shall be " saved " or " spent "—is thus the income received not on that day but on the previous one. A man is said to be *saving* if he spends on consumption less than his disposable income.

The form of our analysis will be much simplified if we can bring ourselves to identify this " day " with the period during which, at the outset of our inquiry, the stock of money changes hands once in final exchange for the constituents of the community's real income or output. To do so, it is true, will not only take us out of touch with the facts, but will preclude us from considering the possibility of an increase in the velocity of circulation of money against output above that from which we happen to start: for our definition does not admit of a piece of money coming to do more than one job in a day. Nevertheless, in order to throw a broad light on certain situations in which this possibility is not relevant, this simplifying identification will here at first be made.

§ 2. There are certain other concepts, akin to but distinct from Saving, which seem to be useful in considering these matters.

A man is said to *lack*, or to do Lacking, if his consumption on any day falls short of the value, at the time of its receipt, of the income which he has at his disposal on that day. It is thus clear that Saving may involve Lacking. Thus, if a man receives an income of £10 on zero day and spends only £8 on consumption on day 1, and if the general situation around him is unaltered, he is lacking the quantity of consumption goods which could be bought for £2. But it is also possible (1) that Lacking should

occur without Saving, (2) that Saving should occur without Lacking. (1) Suppose that on day 1 our man spends the whole of his £10 on consumption, and is therefore not saving; but suppose that other people add to the flow of money expended on that day, thus competing with him for the flow of goods coming forward for sale and driving up their price, so that his £10 buys 8 units of goods instead of 10. Then he is lacking 2 units of goods. It is convenient to call Lacking arising from such a cause Automatic, to distinguish it from the Voluntary Lacking which arises out of Saving. (2) Suppose that on day 1 our man spends only £8 on consumption, but suppose that other people contract the flow of money expended on that day, so that his £8 buys 10 units of goods instead of 8. Then he is saving, but doing no Lacking at all.

It is important to have a separate name, or at all events a separate pigeon-hole in the mind, for this experience of consuming less (or more) than one would have done if other people had not altered their expenditure. For this experience does not itself *constitute* Automatic Lacking (or its converse): it only *entails* Automatic Lacking (or its converse) if, in accordance with the general definition of Lacking, consumption falls below (rises above) the value, at the time of its receipt, of the disposable income. The names which I have suggested, for want of better, for these experiences, are Automatic Stinting and Automatic Splashing. Thus in case (2) above, our man is experiencing Automatic Splashing, but is not doing any negative Lacking.

§ 3. A man is said to be *hoarding* if he takes steps to raise the proportion which he finds existing at the beginning of any day between his money stock and his disposable income. On our simplified hypothesis this proportion is, to begin with, unity: *i.e.* if the representative man's income received on zero day is £10, so also is his money stock at the beginning of day 1. If on day 1 he spends £8 on consumption goods and £2 on a tool or a security, he is saving but not hoarding; if he spends £8 on consumption goods and leaves £2 unspent, he is hoarding as well as saving, for he is taking steps to raise the proportion specified above from 1 to $1\frac{1}{5}$. Thus Saving does not necessarily involve Hoarding. But neither does Hoarding necessarily involve Saving. For suppose our man on day 1 spends £10 on consumption but adds to his money stock by selling a tool or a security worth £2. In this case also he will be taking steps to raise the proportion specified above from 1 to 1^1, and will therefore be hoarding: but he will not be

The converse operations to Saving, Lacking and Hoarding may be called Dissaving, Dislacking and Dishoarding.[1] Hoarding (Dishoarding) may be alternatively defined as acting in such a way as to decrease (increase) the velocity of circulation of money against output.

§ 4. It will be useful to illustrate these concepts from a situation to which Mr. Keynes' work has attracted particular attention, —an "economy campaign" on the part of consumers. It will be assumed that the community consists of two classes, "the public" (A), whose rates of money income are prevented by contract or custom from varying during such short periods of time as are here under consideration, and "entrepreneurs" (B), of whom this is not true. To bring out the essential points, it will be assumed that a decline in the demand for a group of commodities is met not at all either by a restriction of output, or by a restriction of sales and accumulation of stocks, but entirely by a reduction of prices sufficient to market the original output. It need hardly be emphasised that such a situation is unstable, and likely to generate an accumulation of unsold stocks and a restriction of output and employment. To simplify the argument still further, we can start by assuming that at the outset "Investment," defined as expenditure on new instrumental goods,[2] is zero, all net output consisting of consumable goods.

Let S be the expenditure, R the income received and T the output on any day, P the price-level of T, and M the money stock at the end of the day. Let us use subscripts to denote classes and days. Then we start with $S = R = PT$, $S_a = R_a$, $S_b = R_b$. Also, on our simplified hypothesis about the length of the day, $M_a = R_a$, $M_b = R_b$.

Now let us suppose the public decides to save, in the form of an addition to its money stock, an amount of money X per day. Then we have $S_1 = M_a - X + M_b$, $P_1 = \frac{M - X}{T} = \frac{M - X}{M} \cdot P$,

[1] On our simplified hypothesis the possibility of Dishoarding on day 1 is, at least for the representative man, ruled out. For he cannot spend on consumption more than his disposable income, unless indeed he borrows, or sells some property, to enable him to do so: and even in that case he cannot, from the definition of a day, allocate on day 1 any part of the income received on that day to repaying the loan or repurchasing the property. Nothing therefore can cause his money stock at the beginning of day 2 to fall short of his income received on day 1. This only shows, of course, that the simplification is unsuitable for dealing with some of the situations we may want to consider.

[2] More strictly, as expenditure on non-available output, in Mr. Keynes' phrase (*Treatise on Money*, I, 127); but for the purposes of this particular argument we may ignore the fact that some Investment takes the form of increased expenditure on increments of working capital.

$R_{1a} = M_a, \quad R_{1b} = M_b - X, \quad M_{1a} = M_a + X, \quad M_{1b} = M_b - X.$ The public has both saved and hoarded: entrepreneurs, spending their previous day's income, have neither saved nor dissaved, neither hoarded nor dishoarded.

The public has intended to consume $\frac{M_a - X}{P}$ and to lack $\frac{X}{P}$, but it has in fact consumed $\frac{M_a - X}{P_1}$ or $\frac{M_a - X}{P} \cdot \frac{M}{M - X}$, *i.e.* it has experienced Automatic Splashing, $\frac{M_a - X}{P}\left(\frac{M}{M - X} - 1\right)$ or $\frac{X}{P} \cdot \frac{M_a - X}{M - X}$, and has lacked $\frac{X}{P}\left(1 - \frac{M_a - X}{M - X}\right)$ or $\frac{X}{P} \cdot \frac{M_b}{M - X}$. Entrepreneurs have experienced Automatic Splashing $\frac{X}{P} \cdot \frac{M_b}{M - X}$. Thus the whole of the Saving of the public has gone to waste in the form of increased consumption either by itself or other people.

If on day 2 entrepreneurs spend their previous day's income $M_b - X$, they are, in accordance with our definitions, neither saving nor dissaving,[1] neither hoarding nor dishoarding. If the public again saves and hoards X, we have $S_2 = M_a - X + M_b - X = M - 2X$, and the price-level continues to fall. The excess of $\frac{M_a - X}{P_2}$ over $\frac{M_a - X}{P_1}$ is consumption accruing to the public through Automatic Dislacking, the excess of $\frac{M_a - X}{P_1}$ over $\frac{M_a - X}{P}$ is consumption accruing to them through the fact that, in Professor Pigou's words, past contracts have been doctored in their favour. The former type of benefit is enjoyed in common with entrepreneurs, the latter type is enjoyed at their expense.

It will be seen that the cause and extent of the fall in the price level on any day can be defined alternatively in terms of the Hoarding done on that day, or in terms of the excess of Saving over Investment on that day,—Investment remaining zero throughout.

§ 5. What happens if the monetary authority sets out to counteract the economy campaign by a daily injection of new money of amount X into the system? The answer varies according to what supposition we make about the method of injection: to fit our simplified world in which Investment is normally nil, it will be most convenient to suppose that the new

[1] In Mr. Keynes' terminology, they are saving.

money is issued through the hands of a body of dole-drawers, whose expenditure on any day, since they are innocent of the earning of income, must be accounted Dissaving. If the injection begins on day 1, we have $S_1 = S$, $P_1 = P$, $M_{1b} = M_b$. The Hoarding of the public has been successfully offset by the creation of new money: or (if we prefer) the Saving of the public has been offset by the Dissaving of the dole-drawers. This procedure can be repeated day after day as long as the economy campaign lasts: though it is open to the prima facie objection that it involves a misuse of the public's savings.[1]

If the authority delays the injection of X new money till day n, it will on that day prevent the price-level falling from $P \cdot \frac{M-(n-1)X}{M}$ to $P \cdot \frac{M-nX}{M}$,—it will not, of course, raise it to P. In other words, it will cancel with Automatic Stinting the Automatic Dislacking that would otherwise have been experienced, but will not effect any re-doctoring of past contracts. If it wishes to effect the latter, it must inject more than X per day, thus inflicting Automatic Lacking on all parties.

§ 6. We may turn now to a somewhat different case, to which Mr. Keynes has invited particular attention. In this case entrepreneurs, instead of reducing their expenditure to match the reduction in their disposable income, maintain it at its old level, having put themselves in a position to do so by selling securities to the public, whose Saving takes from the start the form of purchasing these securities and not of adding to its money stock.[2] In order to analyse this case, we must approach closer to real life by supposing that Saving and Investment are normally positive, part of the income received by the public on any day being used on the following day in the purchase of new instrumental goods.[3] Let T, T' and T'' be total output, output of consumption goods and output of instrumental goods respectively; P, P' and P'' their price-levels; S, S' and S''

[1] We must postpone to a later stage the question whether this prima facie objection is always justified.

[2] The supposition that the distress sale of securities begins simultaneously with the extra Saving of the public seems to me somewhat unrealistic; nevertheless, since it is not inconsistent with our definition of a day, and since Mr. Keynes appears to attach importance to it (ECONOMIC JOURNAL, Sept. 1931, p. 417), I have thought it best to retain it.

[3] At the cost of further complicating our algebra, we could approach closer still to real life by assuming that part of the Saving and Investment is normally done by consumption entrepreneurs. We could also take account of the fact that if Investment is normally positive, the output of consumption goods is presumably continuously increasing and their price falling as a result of more efficient methods of production.

the expenditures upon them; and R_b, R_b' and R_b'' the incomes, M_b, M_b' and M_b'' the money stocks, of the entrepreneurs who produce them.

Then on day 1, $S_1' = S' - X$, $P_1' = P' \cdot \frac{S' - X}{S'}$; $S_1'' = S''$, $P_1'' = P''$; $S_1 = S - X$, $P_1 = P \cdot \frac{S - X}{S}$. $M_{1a} = M_a$, $M_{1b}' = M_b' - X + X = M_b'$, $M_{1b}'' = M_b''$. As in the previous case, entrepreneurs neither save nor dissave, and the fall in P may be attributed to the excess of the Saving of the public $(S'' + X)$ over Investment (S''). But the sale of securities by consumption entrepreneurs indicates that they realise that their income received on day 1, and at disposal on day 2, will only be $M_b - X$; their action, therefore, in insuring, by the sale of securities, that their money stock at the beginning of day 2 shall be M_b' constitutes Hoarding $\left(\text{for } \frac{M_b'}{M_b' - X} \text{ is greater than } \frac{M_b'}{M_b'}\right)$. Thus the fall in P may equally be ascribed to the Hoarding of consumption entrepreneurs. There is, I think, no paradox about this way of looking at the matter. For if consumption entrepreneurs had not sold securities, while the public had remained unwilling to let its extra Saving take the form of Hoarding, the latter would have had to devote the extra sum saved X to the purchase of new instrumental goods, thus increasing the incomes of some entrepreneurs as much as it diminishes those of others, and causing the price-level of output as a whole to remain unchanged. It is the Hoarding by consumption entrepreneurs which prevents this result from occurring.

Thanks to their Hoarding on day 1, consumption entrepreneurs are enabled on day 2 to repeat their old expenditure M_b'; in so doing they are now dissaving, since their expenditure M_b' exceeds their disposable income $M_b' - X$. But in again selling securities worth X to the public on day 2 they are no longer hoarding, since their action is not calculated to raise the proportion of money stock to disposable income above $\frac{M_b'}{M_b' - X}$, but only to keep it at that level. Hence, since there is no Hoarding, or (if we prefer) since the Dissaving of entrepreneurs cancels the Saving of the public so that total Saving $= S'' =$ Investment, there is no further movement of any of the price-levels $(S_2' = S_1' = S' - X;\ S_2'' = S'')$.

§ 7. In real life there are, of course, intermediaries in the form of an organised stock market between the public and the entre-

preneurs who make new instrumental goods. So also are there intermediaries in the form of merchants, etc. between the public and the entrepreneurs who make new consumption goods; and it seems reasonable in a first approximation to abstract from both. But it will perhaps be well, at the cost of temporary departure from our simplified hypothesis about the length of the day, to digress here to examine the situation which arises if the chain of intermediaries is longer in the one case than in the other. Suppose that if at the outset I am spending £10 on consumable goods on any day I hand it direct to an entrepreneur, while if I am saving—but not hoarding—£10 I hand it to a dealer in securities (C), who on the same day is handing £10 in exchange for a new issue to a company promoter or local authority (D), who on the same day is handing £10 to a purveyor of instrumental goods (E). This picture, though still, of course, highly simplified, seems to represent fairly the essential facts of a capital market in equilibrium.[1]

If now on day 1 I save more without hoarding, *i.e.* if I switch over £5 from the purchase of consumption goods to the purchase of securities, and if there are no distress sales of securities by entrepreneurs, while C and D make the same disbursements as on the previous day, the price of consumption goods falls and the price of instrumental goods fails to rise. What has happened? Either C has sold me the usual volume of securities at an enhanced price, or he has drawn upon a reserve pool of securities to meet my demands,—probably the two happenings have been combined, the latter preponderating. In the former case the price of a certain service, which ought to enter into an index-number of output, has gone up.[2] In the latter case C has hoarded, for by selling for money an asset other than money he has taken steps to increase the proportion of his money stock to his disposable income.

If, by a further departure from our simplified hypothesis about

[1] It involves, of course, the assumption that the average number of times which money is exchanged against output is less than once per day. The money stocks of C and D must be at least equal to their daily *turnover*, not their daily *income*.

[2] This seems to be the natural way of looking at the matter (and in consonance with British income-tax practice), so long as the rise in price is confined to the batch of securities which I buy from C. But if we must assume that through the sympathy of an organised market it is instantaneously transmitted to the securities which C buys, so that for his usual expenditure he can buy fewer of them, then in this case, as in the other, he must be regarded as hoarding. For he has substituted a certain amount of money for a certain volume of securities among his assets, and raised the proportion of his money stock to his money income.

the length of the day, we assume that C has a reserve of money in excess of his daily turnover, there arises the possibility that C should on day 1 preserve his pool of securities from depletion by buying more new issues from D. This action will doubtless occasion some rise in the price of a particular type of output—the services of D; but for the most part it will involve Hoarding by D, who under the impact of C's demand creates new securities, the sale of which increases the proportion of his money stock to his disposable income. Finally, if D also has a reserve of money, and concurrently with the creation and sale of new securities increases his expenditure on E's products by a like amount, there is no Hoarding at all, and no fall at all in the price of output as a whole.

Thus in all cases such fall in the price of total output as occurs is seen to be attributable to Hoarding by *someone*,—either the public, or the entrepreneurs of consumable goods, or the dealers in securities, or those who handle the proceeds of new issues.[1]

§ 8. What happens if, in the case set out in § 6, the monetary authority undertakes counter-action along the lines explained in § 5, *i.e.* by injecting new money X through the hands of a body of dole-drawers? If it takes immediate action, we have $S_1' = S'$, $S_1'' = S''$, and the price-levels do not move; $M_{1b}' = M_b' + X$. What happens on day 2? If entrepreneurs have reason to expect a repetition both of the economy campaign and of the counter-action—*i.e.* if, not distinguishing between a dole-drawer and a member of the public, they expect to receive the same income on day 2 as on day 1 and day 0—they have no need to sell securities in order to maintain their expenditure at M_b'. Hence, if appropriate arrangements can be made, the extra savings of the public become available for financing the counter-action of the authority. If consumption entrepreneurs neither save nor dissave, *i.e.* if they spend on consumption their disposable (which is also their anticipated) income M_b', we shall have $S_2' = S'$, $S_2'' = S''$, and again no movement in the price-levels. This situation can be repeated day after day: though it is open to the prima facie objection that it involves a misuse of the public's savings and presumably a burden on the public finances for interest payments.[2]

It does not seem, however, that we can assume that con-

[1] Hoarding by this last class seems to have assumed great prominence during the later phases of the great American "boom" which broke in 1929.

[2] See p. 403, n. 1.

sumption entrepreneurs will acquiesce permanently in their money stock bearing an enhanced proportion to their disposable income.[1] For their object in taking steps to increase that proportion on day 1 was to put them in a position to maintain their old expenditure M_b'. The authority's action having removed the difficulty in the way of their doing this, it seems natural to suppose that on some day n (which may even be day 2) they will either (i) dishoard and dissave, thus raising S_n' to $S' + X$ and P_n' to $\frac{S' + X}{S'} . P'$; or (ii) dishoard without dissaving, thus swinging a sum X into the capital market and raising S_n'' to $S'' + X$ and P_n'' to $\frac{S'' + X}{S''} . P''$.[2]

If it wishes to avert this situation, the authority must not only refrain from creating additional money on every day except day 1, but must be ready to destroy on day n the money created on day 1,—presumably in case (i) by intercepting and destroying the extra money saved by the public instead of arranging for its expenditure through the hands of dole-drawers, and in case (ii) by selling securities out of a reserve pool to consumption entrepreneurs. We shall then have $S_n' = S'$, $S_n'' = S''$, $M_{nb}' = M_b'$, and full equilibrium for the moment restored. On the following day, if the economy campaign continues, the creation of new money is again called for. Thus the neutralisation by such means of a perfectly steady economy campaign *of the character now under discussion* would seem to call for a great flexibility of monetary policy between the three courses of money-creation, money-canalisation and money-destruction.

§ 9. What happens if the authority, being concerned to maintain the stability not of P' but of P, counteracts on day 1 not in the way hitherto supposed, but by increasing Investment? In this case we get $S_1' = S' - X$, $P_1' = \frac{S' - X}{S'} . P'$; $S_1'' = S'' + X$,

$$P_1'' = \frac{S'' + X}{S''} . P''; \qquad M_{1b}' = M_b' - X, \qquad M_{1b}'' = M_b'' + X.$$

What happens on day 2 depends on the action of instrumental entrepreneurs, which cannot be predicted from our data: but *unless they are smitten with a desire to hoard*, they will disburse the accession X to their disposable income either (i) on consumption goods or (ii) in the capital market.

[1] It is to Mr. Maurice Allen of Balliol College that I am indebted for recognition of this point and its consequences.

[2] Alternatively, the authority may divert this X into additional expenditure by dole-drawers, with results on S_n' and P_n' similar to those reached under (i).

(i) In this case we get $S_2' = S'$, $P_2' = P'$. Consumption entrepreneurs can count on an income M_b' and therefore have no motive to sell securities: the savings of the public thus become available for maintaining S_2'' at $S'' + X$ and P_2'' at $\frac{S'' + X}{S''} . P$, thus raising P_2 to $\frac{S + X}{S} . P$. If the authority wishes to avert this, it can do so only by destroying money, *e.g.* by selling to the public securities worth X out of a pool.[1] The events of days 1 and 2 can then repeat themselves in an endless cycle.

(ii) In this case we get $S_2' = S' - X$, $P_2' = \frac{S' - X}{S'} . P$. Consumption entrepreneurs are constrained to repeat their sales of securities to the public,[2] absorbing its extra savings. $S_2'' = S'' + X$,—the X coming in this case from the instrumental entrepreneurs themselves—and $P_2'' = \frac{S'' + X}{S''} . P''$. To preserve the stability of P the authority need not reverse, but must not repeat, its counter-action. This situation can repeat itself day after day.

The slight difference between the results of case (i) and case (ii) turns upon the fact that in the latter the motive of consumption entrepreneurs for keeping an enhanced proportion of money stock to disposable income remains throughout unimpaired, while in the former it does not. In this respect the case discussed in § 8 resembles case (i). But in all cases it will be seen that if secondary Hoarding of this type is the only kind of Hoarding at work, the total net counter-creation of money required, even in the face of a long-drawn-out economy campaign, is at most very small. To represent such distress sales of securities as a major cause of disturbance and of the need for counter-creation of money seems to be misleading. Their effect in this direction is negligible compared with that of primary Hoarding by entre-

[1] The action of instrumental entrepreneurs in spending their disposable income $M_b'' + X$ constitutes neither Saving nor Dissaving, neither Hoarding nor Dishoarding. The action of consumption entrepreneurs in spending M_b', while their disposable income is $M_b' - X$, constitutes Dissaving and also Dishoarding (since its effect is to decrease their proportion of money stock to disposable income from $\frac{M_b'}{M_b' - X}$ to $\frac{M_b'}{M_b'}$). The public's extra Saving, unless absorbed by the authority, equals its extra Investment. Thus unless the authority deflates, there is an excess of Investment over Saving, or (in the alternative language) an uncompensated act of Dishoarding.

[2] Thus dissaving, but neither hoarding nor dishoarding (see § 6, *sub fin.*). Their Dissaving cancels the extra Saving of the public, while the extra Saving and Investment by instrumental entrepreneurs equal one another.

preneurs or public, *i.e.* a refusal to spend disposable income *either* on consumption goods *or* on instrumental goods or securities.

§ 10. In real life, the length of the average period of circulation of money against output is considerably greater than that which we can, with any show of plausibility, attribute to the "day" as defined in § 1. If we conceive of this period as consisting of K days, and define T as the output not during a day but during a circulation period, we can rewrite the equations of the second paragraph of § 4 as follows:—$S = R = \frac{T}{K} . P$, $S_a = R_a$, $S_b = R_b$, $M_a = KR_a$, $M_b = KR_b$.[1]

For the sake of variety we may analyse the consequences of this complication in connection not (as would be easy) with an "economy campaign," but with the issue of new money by the banking system to draw a new batch of workpeople into employment and build up a new increment of working capital,—that is, of goods in process of production. The new money may most conveniently be regarded as being spent on consumption goods, by the new workpeople, on the day of its creation, their own output not being of a type which is available for consumption and not entering, therefore, into the stream designated by T. If the banking system creates in this way $\frac{X}{K}$ units of money per day, we have, therefore, $S_1 = \frac{M + X}{K}$, $P_1 = \frac{M + X}{T} = \frac{M + X}{M} . P$;

$$R_{1a} = \frac{M_a}{K}, \quad R_{1b} = \frac{M_b + X}{K}; \quad M_{1a} = M_a, \quad M_{1b} = M_b + \frac{X}{K}.$$

In contrast, therefore, to the case analysed in § 4, entrepreneurs' money stock, instead of continuing to bear the old proportion to their disposable income, has come to fall short of K times that income by an amount $\frac{X}{K}(K - 1)$. There is, therefore, some prima facie case for supposing that they will perform Hoarding and Lacking with a view to restoring the proportion to its old level; and there is a certain simplicity, if no more, in supposing that they will aim at spreading this process over the remaining $(K - 1)$ days of the circulation period, thus saving $\frac{X}{K}$ per day, *i.e.* spending $\frac{M_b}{K}$ per day instead of their disposable income $\frac{M_b + X}{K}$. Thus on any n^{th} day, where n is less than K,

[1] Assuming K to be the same for both classes of the community. The method can be extended to the case (presumably actual) in which $\frac{M}{K} = \frac{M_a}{K_a} + \frac{M_b}{K_b}$.

we get $S_n = \frac{M + X}{K} = S_1$, $P_n = P_1$. At the end of K days in all, $M_{Kb} = M_b + X = KR_{Kb}$, and the motive for further Hoarding disappears. Thus $S_{K+1} = \frac{M + 2X}{K}$, $P_{K+1} = \frac{M + 2X}{M} . P$, and the process begins anew.

In the "standard" case here analysed, the effect of this complication may be expressed by saying that the creation of new money tends to raise the average velocity of circulation of all money, this tendency being counteracted on days 2 to K of each circulation period by the Hoarding of entrepreneurs. Or, again, it may be expressed by saying that each piece of new money exercises an influence on the price-level on the day of its birth, and thereafter recurrently at the end of each K days.[1]

It is convenient to have a separate pigeon-hole in the mind for Saving which, while perfectly voluntary, is undertaken not, as it were, out of the blue, but in order to restore a proportion of money stock to disposable income which has been disturbed by an alteration in the rate of expenditure by other people (including the monetary authority). Such Saving (which is, of course, also Hoarding) and the Lacking which it entails may be called Induced, to distinguish them both from the spontaneous Saving and Lacking which are performed without any such provocation, and from the Automatic Lacking which is performed involuntarily. While there is no particular reason to think that the "standard" case analysed above is more likely than any other, there does seem to be reason to think that Induced Saving and Dissaving are often of importance in retarding the movements of prices and incomes generated by autonomous variations in the supply of money, or in its velocity of circulation against output.

§ 11. Definitions are, of course, a matter of taste and convenience, and must be judged by their fruits; but at the risk of seeming to indulge in barren controversy I may perhaps be excused for saying a little in defence of the apparatus here employed. The definition of Saving corresponds, I think, much more closely to the usage of ordinary life and is much less likely to cause confusion than the paradoxical definition employed by Mr. Keynes, according to which entrepreneurs are Saving if they contract their consumption to match a contraction in the income which they have received, and dissaving if they expand their consumption to match an expansion in the income which they have received. Nor is it touched by the argument which Mr. Keynes[2]

[1] Cf. Pigou, *Theory of Unemployment*, p. 200.

[2] Economic Journal, 1931, p. 422.

and Mr. Kahn have advanced in support of their terminology, namely, that with a "simple-minded"[1] definition of Saving, Saving and Investment are necessarily equal. For, so runs the argument, the former is (to the simple-minded) the excess of total income over income spent on consumption goods, while the latter is the excess of total income over income received from the sale of consumption goods. Now the money spent on consumption goods must necessarily equal the money received from their sale; hence the excess of total income over the one must necessarily equal the excess of total income over the other. But it is clear that this disconcerting result only follows if we insist on identifying the income received in any small slice of time with the income whose expenditure (*plus* or *minus* certain other items) generates the income received in this small slice of time, thus averting our eyes from what common sense proclaims (even to the simple-minded) to be the essence of the whole matter; namely, the power possessed by the public and by the monetary authority to alter the rates of income flow,—the former by putting money into and out of store, the latter by putting it into and out of existence. On my definition, Saving and Investment are *not* necessarily equal, and it is on the difference between them that the *movement* of the price-level (not, as in Mr. Keynes' scheme, the *state* of the price-level as compared with some normal state) depends.

§ 12. It is, I think, a defect of Mr. Keynes' scheme that it fuses together two distinct types of burden inflicted on the public by an inflation of bank credit in the interests of capital-formation. These are, on the one hand, the Automatic Lacking imposed through the expenditure of newly-created money by new workpeople, etc. brought into employment to build up additional working capital; on the other, the diminution of consumption which results from the distortion of contracts occasioned by a rise in prices which has already occurred,—a diminution which renders possible increased Saving and Investment by the entrepreneurs in whose favour contracts have been distorted. The former burden stops when the inflation stops: the latter does not. The former would be a feature of inflation in a community which consisted entirely of small independent farmers, craftsmen and dealers: the latter would not.

Professor Hayek's very interesting historical study[2] confirms me in the impression that it is the former type of burden

[1] The word is Mr. Kahn's, Economic Journal, 1932, p. 492.

[2] *Quarterly Journal of Economics*, Nov. 1932, pp. 123 ff.—from which the following quotations are reproduced.

which has been principally in the minds of most of those writers who have called attention, under one name or another, to the phenomenon of "Forced Frugality." "The additional bank-notes," writes Mill, "are, in the ordinary course, first issued to producers or dealers; and though the stock of commodities in the country is no greater than before, yet a greater share of that stock now comes by purchase into the hands of producers and dealers." "L'émission de billets de banque pour une certaine somme," says Walras, "amène, pendant toute la période d'émission, une hausse du prix des produits consistant en revenus consumables et capitaux neufs qui se mesure approximativement par le rapport du montant de l'émission au montant du revenu social antérieur. Ce phénomène est transitoire: une fois l'émission terminée, la hausse en question disparait." Wicksell, in Prof. Hayek's words,[1] taught that "the rise in the price-level . . . is in the first instance brought about by the entrepreneurs spending on production the increased amount of money lent by the banks. This process . . . involves what Wicksell now for the first time called enforced or compulsory saving."

Bentham's exposition is somewhat confused: for while it is only the *first spending* of the new money which is regarded as contributing to the formation of new capital, attention is also drawn to the *continuing* burden suffered by "fixed incomists" as a result of the rise in prices.[2] In Professor Hayek's own treatment both elements seem to be present, but not very clearly distinguished: thus, while it is the newly-created money which is pictured as inaugurating the régime of "forced saving," it is on the encroachment of wages on re-investable profits that chief emphasis is laid as the factor which brings it to an end.[3] In Professor Mises' analysis the two elements are, I think, distinguished, but the term "erzwungene Sparen" is confined, rather unexpectedly, to the second: the thing so named consists entirely of money saved and invested by entrepreneurs as a result of the expansion of their incomes, and is conceived of (also rather unexpectedly) as contributing, so far as it goes, to a fall in the "natural" rate of interest.[4] Until there is a greater measure of agreement as to what "Forced Saving" really

[1] *Prices and Production*, p. 21. I cannot believe that any of these writers would have endorsed Mr. Hawtrey's opinion that "for practical purposes the ideas of Automatic Stinting and Automatic Lacking are completely nugatory" (ECONOMIC JOURNAL, 1926, p. 431).

[2] Hayek, *Q.J.E.*, *loc. cit.*, p. 125.

[3] *Prices and Production*, esp. pp. 52–3. Cf. Haberler in *Gold and Monetary Stabilisation*, pp. 64–5.

[4] *Geldwertstabilisierung und Konjunkturpolitik*, pp. 45, 49.

consists in, I do not feel able to abandon my own inelegant terminology!

The relevance of these distinctions to the analysis of the trade cycle will appear, I hope, in the sequel. But it may be suggested at once that a rise in the rate of interest which renders unprofitable those extensions of capital equipment which have been paid for out of bank loans falling due for renewal,[1] will not necessarily have that effect on those extensions which have been paid for out of windfall profits.

§ 13. The step-by-step method of analysis involved in my definitions has been criticised somewhat contemptuously by Mr. Hawtrey in the words, "These assumptions serve well enough for an exercise in the integral calculus, but seem too remote from practical facts to deserve discussion." [2] I am not able to see whether, in more skilful hands, the whole matter could be treated in terms of the calculus, or whether (as I am inclined to suspect) discontinuity is of the essence of the story. Nor do I see how to apply simple algebraic equations to this matter of a changing income-flow, otherwise, so to speak, than microscopically; Mr. Keynes' attempt to apply them macroscopically over periods which are not internally homogeneous seems to me, for the reasons which I have given, to be unsatisfactory.

In Mr. Hawtrey's own treatment, if consumers dishoard, "consumers' outlay" for a period exceeds "consumers' income" during the same period, since the additional sums received by entrepreneurs are (somewhat arbitrarily) excluded from the concept of income till they are "drawn out" of the business by its owners.[3] If all goods and services were sold direct by one consumer to another, consumers' income and consumers' outlay could not be different in magnitude[4]; and it would then perhaps be more evident to Mr. Hawtrey than it seems to be at present that his own treatment involves implicitly the very concept which I have tried to make explicit,—namely, the successive existence of a short number of slices of time during each of which the money which appears as income for A cannot also appear as outlay by A (and therefore income for B).[5]

D. H. Robertson

[1] *Prices and Production*, p. 55, top. [2] Economic Journal, 1926, p. 429.

[3] *The Art of Central Banking*, p. 93. [4] *Ibid.*, p. 96.

[5] Even as it is, Mr. Hawtrey seems to make use of such an interval. "In practice we may suppose that when the release of cash [by traders] first begins there is a very short interval when [the increment of consumers' outlay] = 0. That is to say, people have spent nothing out of their increased incomes" (*ibid.*, p. 114).

CO-OPERATORS AND THE STATE

LIKE trade unionism and the friendly society movement and socialism, the co-operative movement is closely related in time and genesis to the Industrial Revolution. In Great Britain, the mother country of industrialism, it first took root; and there it assumed the only form compatible with dynamic expression in a nation of industrial wage-earners—consumers' co-operation. Dispossessed as individuals of effective access to the instruments of production and distribution, the wage-earners could only re-establish contact by action as a group. And if the group was to hold its own against large capitalistic enterprise, it had to be by some device which admitted of federal expansion; and this meant starting with distribution and working back to other activities. Considered as a social phenomenon, it was an expression of self-help by voluntary association in the economic field.

It is broadly true to say that on the mechanical and business side agriculture did not pass through the equivalent of the Industrial Revolution until the end of the nineteenth century. On the business side, the revolution developed first in Denmark: on the mechanical side, it went forward at a prodigious rate in Canada and the United States in the decade 1920–30. In both cases the most significant social fruit was a great co-operative movement of agricultural producers. Viewed in the large, from 1820 to 1933, co-operation at home and abroad—among industrial consumers and agricultural producers respectively—is the reply of economic democracy, on its constructive side, to the evolution of modern capitalism.

In the 1820's, when co-operation was coming to birth in Great Britain, individualism was at its height; and the first co-operation, like the first socialism (which in fact was a co-operative socialism), reflected this. Co-operation was a protest against the excesses of individualism in terms of something not far removed from individualism—namely, the voluntary group. The first co-operators desired the intervention of the State not at all—neither as a means nor as an end. Their means was self-help through association: their end was the new state of society, advocated by Robert Owen, the great social free-lance of his day, and having its roots in a community experiment on the land. The Owenite

ideal so blinded the eyes of his disciples that they did not realise for a time whither their efforts were taking them. Would it be to the service of mutual employment through co-operative production; or would it be to the service of mutual supply through co-operative distribution of the necessaries of life? For a time it was both: then patrons jumped in, to advertise co-operative production as a solvent of class conflict, without sufficient regard for its objective possibilities. But by 1890, at any rate, it was clear that the main field of co-operation in this country must be consumers' co-operation; and that co-operation among working-men producers, whilst truly and nobly co-operative, had no dynamic future except in relation to the consumers' movement. Objective conditions determined this. For, in an age of machine power, small groups of workers could rarely be efficient producers; but small groups of consumers, paradoxical as it may seem, could. For, without any departure from their original purpose of self-help through association in the service of supply, they could grow backwards into large-scale production.

Recent tax controversy has brought into prominence the term mutuality, a term which has played little part in the history of the movement, as written by co-operators themselves or by writers friendly to the movement. I am, no doubt, in a minority here, but I greatly wish that co-operators still used, as in the past they certainly used, the term profit; and spoke boldly of co-operative profit *versus* capitalistic profit. For mutuality is a notion which may be twisted to the detriment of the co-operative movement. It suggests a small group dealing with itself without offence to anyone else, and earmarking its advantages to the individual account of members of that group. It at once invites the criticism that the co-operative movement, as it grows, and because it adopts machinery consonant with that growth, thereby loses its co-operative essence. It invites the sort of criticism that was made against the commodity marketing organised by Canadian and American farmers. Co-operative marketing of fruit or wheat succeeds only on a big regional scale. But because farmers were alive to this and tried to embrace in their organisation a majority of the growers in their region, they were accused of being unco-operative, of being a combine, of trying to fix prices. Sir Josiah Stamp has the honour of providing arguments detrimental to co-operation in two hemispheres. His *Report on Trading in Grain Futures* (Ottawa 1931) was an able brief for the grain trade, in the cloak of abstract theory. His

opinion on mutuality in the Royal Commission on Income Tax (1920) was quoted by the Chancellor of the Exchequer in the debate of May 22, 1933:

> "The 'mutuality' nexus between the individual's position as part owner of a business and his position as a purchaser is so slight and remote, and of so little significance as a practical factor, that it can be disregarded for taxation purposes in favour of a completely objective view of the business as a whole."

A local group, dealing only with its members as regards sales, might well be formally perfect, as a mutuality; and yet at the same time totally unco-operative in spirit. For (1) it might make profit out of its employees by paying them an unfair wage, (2) it might adopt an attitude of exclusiveness to its less fortunate neighbours. Such a mutuality would be a social farce: and from the outset the co-operative movement has set its face against such developments. In the early days, when its employees were few, it shared profits with them; and spoke of its action as profit-sharing. When the growth of the movement made this form of profit-sharing inadequate, it encouraged its employees to become trade unionists; and it offers to-day conditions of work, recreation and retirement which more than offset the early profit-sharing. The danger now is rather that short-sighted trade unions or politicians will try to hold the co-operative societies and their Wholesales to wage-rates which are higher than those which are accepted from non-co-operative factories and shops. Furthermore, the movement keeps its membership unrestricted. This fundamental condition, when coupled with the provision that all surplus, above a limited interest on share capital, is held as a reserve for the common good or divided among members in proportion to purchases, has democratised the movement for all time.

Co-operators prefer the word surplus to profit; and henceforth I shall employ it. But I resist the notion that the surplus, when distributed in proportion to purchases, is nothing more than the return of an over-charge. It is surplus earned by the co-operative method of trading. The New World is strewn with the failures of co-operative stores run on the "cost plus" method (*i.e.* the method of re-selling at the wholesale rate with only a small addition for out-of-pocket expenses). They force prices down for a moment, but, lacking adequate resources, they are overthrown by the little set-backs which confront nearly every

society at the outset. They have no fighting reserve. When the Rochdale Pioneers decided to sell for cash at market price, they avoided this temptation. They made it clear that they were more than price-cutters. By selling for cash, they were able to buy wholesale for cash. By selling at market price, they realised a surplus which gave concrete form to the fruits of their co-operative effort. They showed in tangible form the results of loyalty to the store. They created a novel type of reproductive thrift. By the act of spending, the members provided themselves with the wherewithal to save. They almost performed the miracle of eating their cake and having it. It was a social invention, as significant as the steam engine, to the evolution of economic society.

Before the present year, 1933, the courts gave formal recognition to the distinctive element in co-operative surplus by a variety of arguments in which the reference to mutuality was always important. In defending the cause of mutuality to-day, co-operators are holding to the line of thought which the courts developed for their protection. It was held that a mutual body cannot make profit out of itself; that the dividend on purchases is of the nature of an over-charge or of a trade discount. The Industrial and Provident Societies Act, under which co-operative societies are registered, does not compel co-operative societies to pay a dividend on purchases. But it exempts the dividend on purchases from assessment to Income Tax under Schedule D in view of the distinctive nature of co-operative surplus, and it puts a bar to fraudulent appropriation of the co-operative form by providing that the society forfeits exemption if it sells to non-members and at the same time restricts the number of its shares by rule or practice (Industrial and Provident Societies Act of 1893, § 24). Now all co-operative societies sell to non-members; and very often those who begin by dealing as non-members are stimulated by their contact with the store to become members. But in the aggregate the amount of non-member trade is trifling. The estimate of the Board of Inland Revenue in 1918 was "something less than 2 per cent. of the total" (*Report of the Royal Commission on Income Tax*, § 547). Managers of the larger co-operative societies, where non-member trade is greater than in small societies, put it in the neighbourhood of 1 per cent. to-day. The reason is obvious. Only a trifling payment is required to obtain membership; and there are few who are so foolish as to lose half or all their purchase dividend by abstaining from membership.

As to restriction: no co-operative societies restrict their membership. What they restrict is the amount of share capital which one member may possess (legal limit £200), and the interest on this capital (traditional limit 5 per cent. and now frequently 4½ per cent.). From this important consequences follow:—

(1) Given good management and service, increased membership means not a share-holding scramble for a limited profit divisible in proportion to capital ownership, but participation in a social surplus which grows in proportion to the loyalty of members to their store.

(2) There is, and can be, no speculation in the shares of a co-operative society. Virtually, all the share capital is withdrawable at par (provided, of course, that the society is solvent). Where it is not so withdrawable, easy transfer is arranged to a new member. The undistributed surplus, which in a company would increase the market value of the shares, belongs to an unrestricted membership.

(3) The retail societies and their Wholesales have been entrusted with the surplus of their members (which are individuals and retail societies respectively)—at times in embarrassing abundance. The whole of the capital offered to retail societies by their members—within the legal limit—must be accepted; and they pass on to the Wholesales what they cannot employ locally. If a society were to limit its share capital by limiting its members, it would forfeit income-tax exemption hitherto enjoyed, unless at the same time its trade was confined strictly to its members. And such confinement would be in principle unco-operative as well as in practice inconvenient. For nothing is further from the co-operative ideal than the closed shop. The world over, true co-operation opens its doors to all who are willing to observe the rules and assume the duties of membership. In the course of its growth to its present size, the co-operative movement acquired considerable reserves. These reserves are undistributed surplus; and nothing but an analysis concocted for the express purpose of treating them differently can make them different in origin and kind from the distributed surplus, which the Government to-day is pleased to align with the trader's discount. Their destination is fully co-operative. They may be thought of as a trust fund for cheapening goods to all who may hereafter choose to become co-operators. It is the duty of the Wholesales to employ these surplus sums within the movement if they can safely do so. But they feel that they are trustees for

funds which their members regard as savings. Nothing but a miracle of prudence and the brilliant leadership of J. T. W. Mitchell in the old days prevented the loss of this money in rash productive ventures. Even so, the losses were sometimes serious. But these the Wholesales wiped out as they occurred. One can well imagine the dismay of the authorities of the Wholesales to-day, when they find the Government insinuating that they are rich corporations far removed from their members, with a large taxable surplus tucked away somewhere. It is a direct invitation to societies to pay out in dividend more than prudence dictates.

The place of co-operation in the legal framework is the outcome of a long evolution. It is not the way of England to make a legal cradle and then find a baby to fill it. The baby arrived, born in the pangs of social distress; and the law found a cradle for it. In the early nineteenth century the law was suspicious of associations. It made trade unionism a conspiracy. It fell with spasmodic savagery upon the ritual of the friendly societies with a trade purpose. Of the co-operative society (once it had overcome its early dread of an Owenite community of property and wives) it had less fear. Its purpose, mutual aid by humble retailing, could be no threat to the most nervous Government. The law therefore placed the co-operative society under the wing of the Friendly Society, by the "frugal investment" clause in the Friendly Societies Act of 1846. This clause granted registration to societies which enabled their members "to purchase food, firing, clothes, or other necessaries, or the tools or implements of their trade or calling" and thus to make frugal investments. In 1852 they received a legal personality as Industrial and Provident Societies. In 1862, 1867, 1876, largely through the efforts of Christian Socialist lawyers, they secured the amending legislation that was necessary to their federal expansion. For those were the days when social policy was not dictated by grocers. The statesmen of that time recognised the contribution co-operation was making to solving the "condition of England" problem. It did a vast work of education and social amelioration, without calling upon the State for one penny. Moreover, it was a potent ally in the enforcement of the law. In the 1830's (and in some places much later) truck was definitely illegal and yet notoriously prevalent. The workers' co-operative store was a superbly fitting retort to the master's truck shop. And right down to the present day the co-operative movement has stood out as a rock of social stability and a pattern of open trading in decent pure goods. Whereas the Governments of other lands have poured out millions

to establish co-operative societies in the more speculative fields of agricultural marketing and of credit, the Government of Great Britain has adopted the more economical form of waiting till the movement was strong enough to be subjected to differential taxation, on the evidence of a small committee of inquiry,[1] whose every sentence shows them to be ignorant of the history and significance of the movement.

The position before the Finance Act of 1933 was as follows :—

(*a*) As to interest on share and loan capital. Members are and always have been liable to income tax in respect of this, at their respective rates of liability. But the society does not deduct the tax at source. The historical reason for this is that under the means limit the recipients would have been in the vast majority of cases totally exempt.

(*b*) As to dividend on purchases. There was for a time some doubt as to whether this was taxable. But its immunity was secured by a House of Lords judgment of 1889 (the Styles case), which decided the point by ruling that in mutual trade no profit, and therefore no liability to income tax, arose. The decision was reached in reference to a mutual insurance company, the New York Life, in which the members and recipients of benefits were one, and it was extended by analogy to co-operative societies, where substantially there is identity between members and non-members. By the Finance Act of 1933 the whole principle of mutuality, under which hitherto the law and the law courts have distinguished co-operative trading from commercial trading, was jettisoned, and the dividend on purchases was exempted as a trade expense, in accordance with the inspired report of the Raeburn Committee. The Financial Secretary to the Treasury, replying for the Government, said "'Divi' was to be exempt, not because it was mutual, but because it was a trade expense. There was no mutuality in 'divi'; it was paid to non-members, as well as members" (*Times*, June 1, 1933). Because forsooth prospective members are sometimes allowed all or half the dividend on their purchases, therefore the remaining 98 per cent. of trade is not mutual trading!

(*c*) As to undistributed reserves, these are the reserves on which the Raeburn Committee fixed its eyes. By taxing these, £1¼ million might be secured for the Exchequer. Already co-operative societies paid income tax under Schedules A and B in respect of the ownership of land and houses (and this at the

[1] Committee on the Present Position of Co-operative Societies in relation to Income Tax. Chairman, W. N. Raeburn. 1933.

full rate irrespective of whether the proprietors have incomes large enough to be taxpayers); and now by taxing reserves not embodied in lands and buildings the Government expects to derive what it is pleased to call "a small contribution of about a £1,000,000 a year" (*Times*, June 1, 1933). The argument of the Raeburn Committee (which the Government has accepted throughout) is that the co-operative society is an "entity" separate from its members: the individual member having no claim to the undivided surplus in the possession of this legal entity. The co-operative societies, it is argued, became corporations by registration under the Industrial and Provident Societies Act. Throughout, the Committee treats the co-operative societies as trading companies, distinguished only by the device of a trade discount.

As the Chancellor of the Exchequer explained, the undistributed income of an ordinary company is taxed:

> "In the case of ordinary trading, when we are considering the assessment of Income Tax upon its undistributed income, we do not stop to consider whether any part of that has been derived from transactions with its individual shareholders, although some part of it may well have been so derived. We do not stop to consider that. Income Tax is assessed upon undistributed income because that income is the property of this entity, the company itself" (Hansard, May 22, 1933, p. 777).

This point is important. The British income tax is in principle a tax on individuals: it is not a corporation tax. However, the company as an entity is charged with the tax on its profits, and in this way it pays the tax at source on behalf of its shareholders. When these profits are distributed, it recoups the tax by deduction from the dividends; so that in this way the dividend receivers pay the tax due from them as individuals. It is not double taxation; and if the company distributed the whole of its profit, it would *qua* company pay no tax at all.

But reserves are necessary to expansion; and the company must pay tax on these, whatever the status of its shareholders. Thus, if a company consisted of one thousand widows, each of them drawing £50 a year from the business and having no other source of income, then any amount which such a company put to reserve would be taxable regardless of the fact that this sum, if distributed, would have entitled the recipients to the recovery of all the income tax levied on it.

The position of the co-operative societies hitherto has been that their allocations to reserve (except in so far as they have taken the form of lands and houses) have been treated not like the interest on their share capital on which tax is payable, but like the dividend on purchases on which tax is not payable. It is the undivided part of the surplus. Economically, it is of the same order as the divided part of the surplus; and the Chancellor of the Exchequer can only put it in a separate class by totally neglecting the fundamental difference between shareholding in a company and membership in a co-operative society. The shares of a company are limited. The shareholders are entitled to pay bonus shares to themselves on which income tax and sur-tax are not payable by the shareholders; and the result of successful trading is not only to add to reserves (which additions mean extra tax), but also to add to the selling value of the shares (which increment of value is not taxable income).

Contrast the position of a co-operative society. There is not, and there cannot be, any limitation of shares, any issue of bonus shares, any increase in the capital value of shares. The only sense in which the co-operative society is an independent entity is in respect of its independence of and immunity from individual speculative profit. Its reserves are the common property of the membership, and have accrued in the fulfilment of their co-operative mission. To tax these reserves is not to abolish a privilege, but to strike at the heart of co-operative mutuality. Therefore to bring the reserves under taxation, the Chancellor inserts in the Finance Act a long clause in seven parts, which is an unhappy piece of *ad hoc* legislation. Generically, the surplus distributed on purchases is identical with the surplus not so distributed. But it has pleased the Government to suggest that the Wholesale Societies and their affiliations are great corporations handling other people's money in the way of trade to their own corporate advantage. This, of course, is mere illusion. When the Prime Minister explained to the House (Hansard, May 22, 1933, p. 789), that he had only promised not to tax "divi's," he was faithful to the letter only. For, unless the authorities of the co-operative movement are out to smash it, they must pass back the new tax to the societies, the societies must pass it back to their members; and they can only pass it back in reduced dividend on purchases, for this is the only variable return in their business.

The Chancellor of the Exchequer in his final reply made merry of this (*Times*, June 1, 1933) in language which, however true in a worldly view, mocks at the faith of co-operation:

> "As to the rank and file of the co-operative societies, he did not think that they were going to be as disturbed as honourable members had suggested. They would not be able to find any difference after this tax was imposed from the position before. Their dividend would be the same, unless, as some honourable members had said, it were increased, and they certainly would not complain of that (Laughter). Did the ordinary rank and file member ever hear of the reserves? Did he know what they were? He knew that they did not come to him. He was not going to get excited about the taxation of reserves. What he cared about was his 'divi.'"

This being the situation of 1933, what should be the attitude of co-operators to it? Wisdom lies along four routes :—

(1) Co-operative societies must help their Wholesales, and members must help their societies, to bear this unjust tax. If it is sought to evade it or minimise it by declaring higher dividends than heretofore, this will but play into the hands of the big traders, who were behind the hostile legislation. Rather than weaken the organs which are the spear-head of the movement—the Wholesales, the Co-operative Wholesale Society's Bank, the Co-operative Insurance Society and the like—it would be well to suffer for a time a reduction of dividend.

(2) Co-operators should use this attack, as co-operators have used trade boycotts and the like, to institute a campaign of further loyalty to the co-operative movement. If this is more than talk, it will mean an increased demand for the services of the Wholesales and their filials; and this is yet another reason for no weakening of the central finances of the movement.

(3) The legal and accounting departments of the movement should study carefully devices such as those used in the Canadian Wheat Pool, whereby the $2\frac{1}{2}$ cents deducted from members' receipts were placed to their individual account in elevator and commercial reserves. On the funds so placed to reserve interest was paid to the individual in whose name they stood. The difficulty of applying this is the vast membership of the consumers' movement. But could not the membership of each society be organised by series, so that the unit of accounting was a workable group? Here the experience of Denmark and the United States in group mortgages should prove useful. It would, however, be unwise for the societies to individualise their reserves, merely to evade taxation. For Parliament is omnipotent, and

could counter every step by *ad hoc* legislation of the type that has reached the Statute Book.

(4) It is further my personal view that the co-operative movement should enter politics on a really intensive scale. In the early days, the co-operative tradition was non-political. For the working-class politics of those days meant Chartism, and Chartism led nowhere. Moreover, the movement had stout friends among the Christian Socialists and Liberals, who were strong enough to secure legislation suited to the needs of the movement. To-day co-operators are challenged in the political arena, and must fight back in that arena. Women have the vote. They, as the wage-spenders, are the economic core of consumers' co-operation. On April 5, 1933, I attended a Jubilee Rally, over 3,000 strong, of the Women's Co-operative Guild in the Free Trade Hall, Manchester. I wonder if its walls have echoed to social vitality such as this, since the great days of Cobden and Bright. Cannot this mass of energy be turned to account? For, as I see it, it is the individual savings of co-operative men and women, placed for safe keeping in the safest channels of investment, upon which the Exchequer has cast its eye.

In a grave emergency much help is given by a proper appreciation of the past. The movement is now a century old. It is the most constructive side of the Labour Movement. Trade unionism is apt to be sectional and negative. Consumers' co-operation is a universal interest; for all must eat, even the unemployed.

Structurally, the British co-operative movement is in line with those present developments which have a real future. It is in line with municipal enterprise. The co-operative store and the municipality are associations of consumers. They do not make profit or surplus—call it what you will—by supplying others. They minister to their members, as a church ministers to its congregation. The co-operative store supplies goods which normally are produced under conditions of competition. The municipality supplies services which are monopolistic in their nature, such as water, light and transport, or which are a communal need, such as drainage and parks. The outlook and ability required on a town council are very much those required on the committee of a co-operative society or its federal authority. Furthermore, the co-operative society is grounded on locality. Crocodile's tears are shed over the small trader. He lives on as numerous as ever; and when he goes under, it is not the

co-operative society, but the great chain store, with no local attachments, which undoes him. If a place is to have any control over its economic destiny in the future, it will only be through the public authority of the place or its co-operative store. But the loyalties of capitalistic production and distribution are national and sometimes super-national.

It is in line with modern rationalisation. The generalisation of the industrial revolution made the store movement nation-wide; and with national expansion the federal Wholesales grew up to act as the promoter, the stabiliser and the guardian of the movement on its economic side. Thus the individual co-operative society is able to retain its foothold of loyalty to a locality without sacrificing the economies of mass purchase and mass production. The secured market, which is the cry of all rationalisation policy, is the very key and *raison d'être* of consumers' co-operation. In a season of unemployment such as the present, the C.W.S. nurses societies which are struggling for life in a distressed area. Thus the pains of transition, when industries are failing in one area and growing in another, are eased.

It is in line with the forces making for public health. In the early days, co-operators were usually temperance men; and from the outset they made a strong point of selling useful articles of good quality produced under fair and healthy conditions. The co-operative stores were to the front in granting the forty-eight hour week, the half-holiday, earlier closing of shops—boons which are now general. The success with which in recent years co-operative societies have entered on the supply of pasteurised milk is due in part to its obvious harmony with the co-operative tradition of purity and health.

It is in line with the right kind of imperialism. This is the field of which I write with the greatest knowledge. I have assisted at the steps taken to establish liaison between the Dominions and the Mother country. The C.W.S. and the Scottish C.W.S. have been persistent in their efforts to buy from genuinely organised co-operators overseas. The movement is critical of the Ottawa agreements of 1932, in so far as they raise new tariff barriers: although I personally take them for something much more promising, the beginning of a planned economy of external and internal trade. But the Dominions must give fiscally as well as take. The big difficulty which the C.W.S. has in inter-trade with farmers' societies in Canada, or with the only great industrial co-operative society in Canada, Sydney Mines, Nova Scotia, is not distance, but the heavy tariff on the class of

goods which it could exchange or sell to them. Canadian industrialists consider the fleecing of their farmers to be an inalienable birthright. The British Wholesales are big buyers of foodstuffs. They are Denmark's best friend; and their imperialism is genuine because they try to do trade with other members of the Empire without hurting old friends. The loudest imperialists agitate for the raising of the tariff against the Mother Country the very next day. I listened to their noise for ten long years, 1921–30.

Finally, it is in line with the type of effort which Mr. Keynes envisages under loan expenditure, and which *The Economist* calls public investment. Perhaps under any scheme of distribution there is the danger that passive saving may get out of line with active investment. But the danger surely is least when the river of saving is fed from the well of previous spending and flows out into a sea of enterprise producing goods for those who supply the savings. There is a great reproductive mutuality in this, of immense social significance to an age which by its new technique makes millions idle and unable to consume.

We in England are so familiar with the "co-op" and the "divi" and the things that go with them, that we take them for granted in any industrial society. But in the opinion of the New World, consumers' co-operation is the most remarkable achievement of English democracy. Labour politics they know, trade unionism they know, they have plenty of both themselves. But here in Great Britain is a commonwealth of perhaps one half of the wage-earning industrial population, conducting through their own organs one of the greatest businesses of the country; employing over 200,000 men and women in their own factories and shops; having wages of over £200 millions per annum—and doing it all without a pennyworth of help from the State, but, on the contrary, in these days, under suspicion from the State. This to them is wonderful in the telling. Let us not forget it now in the country which was the birthplace of the co-operative movement.

C. R. FAY

TRENDS IN GERMAN BUSINESS CYCLE POLICY

LIKE the seven Greek cities boasting to be the birthplace of Homer, the leading nations of the world seem to be contending for the distinction—a doubtful one but not in all respects useless—of being the hardest hit by the world crisis. This is a question which it is extremely difficult, if not impossible, to settle. The deficiency of the statistical data, combined with the high degree of relativity that must appertain to all judgments on questions of national economic welfare, will always leave a broad margin of doubt. Thus if we measure the degree of destitution by the percentage of unemployment, or by the percentage of shrinkage of production, or by any similar criterion, it may well remain a matter for dispute whether it is the United States or Germany which heads the list. But there is one indisputable fact, not always duly recognised, which makes the case of Germany the saddest of all. The terrible weight of the world crisis falls upon a Germany that for nearly two decades has gone through sufferings which cannot be adequately described in cold statistical figures. All who have shared the experience of the present author of growing up amid the splendour of the easy-going pre-war period, and then going through the unspeakable hardships of the war, the breakdown of the old political and social order, and the economic disintegration and wholesale impoverishment brought about by the after-effects of the war, by merciless peace treaties, and by the greatest inflation of history, may well come to the conclusion that Dante had witnessed next to nothing. It is the lack of economic and psychic reserves, used up by the exigencies of two decades, which imparts to the German case a very distressing degree of uniqueness, and in some respects renders it more understandable. How has German economic thinking reacted on it? That is the problem towards which I may be permitted to make a modest contribution. In doing so, it is my expressed aim to avoid writing a literary review. Germany's economic reasoning and her economic experiences will serve me as a background against which to make some contribution to the world-wide discussion of the fundamental problems raised by the present crisis. My purpose is more theoretical in nature than my title would suggest.

The peculiarity that I have mentioned of Germany's economic crisis must to some extent be held responsible for the tremendous strength of the anti-capitalistic movement which has sprung up during the last two or three years. This movement must undoubtedly be regarded as much more prominent in Germany than in any other of the great nations, especially when it is remembered that in one way or another a great part of the intelligentsia have participated. As the crisis progressed it became more and more widely believed that it spelt nothing less than the total collapse of our present economic and social system, a kind of last judgment, a "crisis to end crises" as it were—in short, a catastrophe that could mean nothing else but the end of capitalism. According to this well-known school of thought, it is hopeless to attempt to fight the crisis by methods which are based on the tacit assumption that it is feasible to salvage the economic system. A business cycle policy which means nothing bolder than a policy working *within* the present economic system, and relying on its most elementary reactions, is regarded as a rather pathetic naïvety, for which its advocates are only to be pitied. We must abandon the wreck, leaving it to break up, and seek salvation on the shores of the promised land of a planned autarchic economy, with as much agriculture and as little manufacturing as possible. So is the cry.

This is not the place to analyse this new anti-capitalistic movement, which, coinciding with similar movements abroad, presents a challenge to the reasoning powers of the more conservative economists and provides an indication of the growing impatience of the desperate masses with the capitalist system, and with all that goes with it.[1] We must confine ourselves to business cycle policy, in the proper sense outlined above. But it is impossible to exclude all consideration of the radical group, for some of the features of anti-capitalism have crept into the more conservative programmes.

This radical group apart, there are two main schools of thought on the question of how to combat the crisis. This division, which applies to other countries as well as to Germany, is rather clumsy, as will be seen, and is very apt to lead to grave injustice. But it provides a useful starting-point for the further treatment of the subject. In the first school we find those whose firm belief it is that the present crisis, even in its later devastating phases, must still be regarded as the inevitable reaction of vast credit

[1] The author has dealt with the subject elsewhere in his article "Die säkulare Bedeutung der Weltkrisis," *Weltwirtschaftliches Archiv*, January 1933.

expansion, unduly prolonged over several years and tremendously intensified by a great number of factors. Among these factors the front rank must be assigned to various long-run economic tensions and political conflicts, to certain degenerative tendencies of the capitalistic system, and to the lack of general economic elasticity, caused by interventionism and monopolism and untimely attempts at dodging the inevitable repercussions of the boom period. This school leans towards the *laissez-faire* outlook, severely condemning every attempt to shorten the salutary processes of liquidation and readjustment—of the "*Reinigung*," to use a very popular German expression—and vehemently urging the removal of all that stands in the way of the adaptation of the whole structure of prices and costs to the lower economic level demanded by the crisis. Its members do not deny that the crisis is characterised by a terrific process of contraction, very complicated in nature, and they may even go reluctantly so far as to apply the term "deflation" to this process. But they warn us that the phenomenon of deflation owes its origin to random and independent causes and they do not regard it as the unavoidable manifestation of liquidation and readjustment. They beg us to rely on the well-founded hope that even this crisis will at the proper time give way, more or less spontaneously, to a new period of recovery, and that this will occur when the situation is ripe, *i.e.* when the crisis has fulfilled its purgatory mission and universal confidence has once again been restored. All that we can do is to facilitate this mission by all possible means, leaving no stone unturned in the attempt to create a fresh atmosphere of confidence. There seems to be nothing for it but patiently to go through with the crisis unto the very end. Prices, costs, and incomes must be lowered over and over again, in accordance with the steady decline in the economic level; and at the same time the expenses of the State must be severely restricted, and if there is no other way of balancing the Budget taxes must be raised. Liquidation, adaptation, restriction appear as the main features in the programme of this school of thought.

It cannot be denied that in all official and semi-official quarters in Germany there was adherence to this view, at least until the reign of Chancellor Brüning came to an end in the summer of 1932, the adherence being warmly supported, and probably rather influenced, by the two leading periodicals, the *Frankfurter Zeitung* and the *Deutscher Volkswirt.* The famous *Notverordnungen* of this period, especially after the great crash of the summer of 1931, represented heroic efforts to implement the

policy of restriction and adaptation. The majority of academic economists raised their voices to the same tune during the greater part of this period.

But as early as the summer of 1931 it was becoming more and more noticeable that staunch belief in this policy and in its underlying reasoning was beginning to weaken, quite apart from the ever-rising flood of quack cures, devised by busy inventors who suspect none of the difficulties that are involved and do not understand why a crisis ever occurs at all. It is extremely interesting to follow up the various phases of growing heresy and to compare them with similar developments abroad. The first breach in the wall of orthodoxy was probably effected by the report delivered by a committee of experts which was appointed by the Government in the spring of 1931 for the study of unemployment relief. As the present writer was himself a member of this Committee (the Brauns-Kommission, called after its Chairman), he is in a position to write with intimate knowledge of the general line of reasoning which prompted its members.[1] They were fairly conservative in their general attitude, but starting from considerations very much akin to those worked out by Mr. Keynes in England at about the same time,[2] they became more and more dissatisfied with the restrictionist theory, and more and more convinced that the crisis had reached a phase where something could be cautiously done to shorten the road to recovery, without generating a relapse for the worse and without jeopardising the stability of the mark. The Committee clearly realised that, in accordance with all experience and with all theoretical reasoning, recovery must necessarily take the course of credit expansion, which for preference would be utilised for financing new investments. The national economy was pictured as lying in a kind of torpor, from which it might well be aroused by some initial impulse administered by the State, the famous "*Initialzündung*" (initial ignition), a term for which the present writer must reluctantly confess his paternity. The Committee were not prompted by any inclination towards *Planwirtschaft*. They were, on the contrary, convinced that the initial impulse,

[1] For details cf. his article "Praktische Konjunkturpolitik, die Arbeit der Brauns-Kommission," *Weltwirtschaftliches Archiv*, October 1931.

[2] In other countries Prof. Ohlin (Stockholm) and Prof. Viner (Chicago) seem to have adopted much the same standpoint. Cf. *B. Ohlin*, Ungelöste Probleme der gegenwärtigen Krisis," *Weltwirtschaftliches Archiv*, July 1932, and "Ett Konjunkturuppsvings Förutsättningar och Möjligheter" ("The Conditions and Possibilities of Business Revival"), Stockholm, 1933; F. Viner, "Balanced Deflation, Inflation or more Depression," Minneapolis, 1933.

if only it were strong enough, would restore the capitalistic system to its old strength and potency. There were, of course, two main questions which presented themselves: first, where to find the lenders of the new credits, and secondly, where to find borrowers who would be willing to utilise these credits for the purpose of new industrial investment. The Committee were well aware of the lamentable state in which the German banking system found itself, oppressed as it was by the terrible weight of maturing foreign short-term debts. It was therefore found necessary to recommend that, in order to restore the working of the banking system and to improve its liquidity, most strenuous efforts should be undertaken to obtain new foreign loans for the consolidation of a part at least of the short-term credits. As to the second question, it appeared for various reasons that the strongest incentives might not succeed in instigating private initiative to the requisite degree. A kind of organised collective initiative seemed almost inevitable, and the only effective solution was thought to lie in a well-framed programme of public investment.

Unfortunately, the recommendations of the Brauns Committee found very little sympathy. They had a distinctly bad press, and in their essentials they were laid aside by the Government. Despite endeavours to elucidate its meaning to a wider public, very few people seemed even vaguely to understand what the Report was driving at. The time was clearly not yet ripe. A few weeks later, the maturing foreign short-term debts precipitated, just as the Committee had feared, the great crash, which for a long time discouraged all attempts in the direction suggested by the Committee. Though its work passed into almost complete oblivion, it seems proper to refer to it here as marking the foundation of the *second school* of thought, the influence of which, in regard to the interpretation and the practical treatment of the crisis, has become more and more visible, until to-day it is unmistakably holding the field. Before analysing this second school of thought in further detail, we will briefly survey its practical influence on the various phases of German business cycle policy. The first great attempt at administering an " initial impulse " on a wider scale—and with the expressed aim of expansion rather than of restriction and adaptation—must be attributed to the Government of Brüning's successor, Chancellor von Papen, who in the autumn of 1932 announced a rather ingenious project of credit expansion. It was based on providing incentives for new investment by private entrepreneurs. These

incentives consisted mainly of certificates to be given to business men in return for payment of those taxes which may be regarded as a direct burden on production, in the sense that its removal might be expected to react promptly on the willingness of entrepreneurs to undertake new investment. The certificates (*Steuergutscheine*) were to be redeemed later on, together with a certain agio, and they were made re-discountable at the Reichsbank so as to render them negotiable paper of the most liquid character. What in effect the plan amounted to was that the most burdensome taxes (business taxes, turnover tax, etc.), while not actually abolished, were transformed into liquid assets. The whole system was rather complicated, but its meaning can be summed up by saying that in the place of certain taxes there was instituted a forced loan, the titles to which, thanks to the collaboration of the banking system, could be sold or employed as collateral. In other words, a certain amount of taxes were virtually abolished, but the financial burden of this abolition was temporarily shifted from the State to the banking system, which would expand credit to the corresponding extent. This assumed that business men would employ their *Steuergutscheine*, not for paying off or consolidating old debts—improving their own liquidity, as it were—but for making new investments in working or in fixed capital. The behaviour of the entrepreneur of course constituted the real problem. Of this the Brauns Committee had been well aware, and they had come to the conclusion that private initiative was too unreliable, and that recourse was necessary to an initial public stimulus. While the entrepreneur might respond to the stimuli administered to him or he might not, on the whole it appeared likely that the degree of response would be insufficient to render the pull effective. The only result would then be an improvement of private balance-sheets and an increase of public debt, without any visible alleviation of general economic conditions. A prompt expansion of credit could, of course, have been ensured by downright abolition of the taxes in question, resulting in a budget deficit which would have to be met by means of short-term credits granted by the banks under the leadership of the Central Bank. In this way two birds would have been killed with one stone. A very strong stimulus would have been provided to private initiative, causing an expansion of business and consequently of the volume of credit, and at the same time an expansion of credit would have been effected as a result of the State's additional demand for credit. Or, to use Mr. Keynes' terms, the rate of investment would have been raised and the

rate of saving would have been lowered at the same stroke. This very simple method would in pure theory provide the most effective and the most prompt form of an "initial ignition." But there is much that might be said of its psychological drawbacks. At any rate the German Government did not dare to adopt it. It was decided to follow the roundabout Papen Plan (the real author of which seems to have been Dr. Warmbold, who at that time was Minister of Economy), in spite of the risk that it might not work as it should.

And indeed, for the very reasons explained above, the Papen Plan did not prove a great success. The fear that private initiative would be insufficient was evidently justified. The next Government, under General von Schleicher, took the logical step of falling back on the previous programme of public investment, which was to be financed by bills guaranteed by the Reich or by the employment of *Steuergutscheine* as collateral. This policy has been pursued on a still wider scale by the Hitler Government, which has recently (May 1933) made provision for public and semi-public works up to the sum of one billion Reichsmarks, and has also introduced fresh incentives to private initiative. The exemption from all taxation of expenditure on the replacement of old machinery is perhaps the most interesting measure and, by attacking the process of deflation at a vital point, it is likely also *cet. par.* to be very effective. In proceeding with this policy, continuously aimed at economic re-expansion, the various governments have laid great emphasis on the stability of the mark, which has been strenuously defended by a rigorous system of *Devisenzwangswirtschaft* and by standstill agreements on the foreign short-term credits. Occasionally it has been suggested that the exchange value of the mark be voluntarily lowered, with the object of facilitating the expansion of credit and of meeting the competition of countries with depreciated currencies. But such suggestions have been very rare indeed, and they have always been rejected with considerable indignation. It remains to be seen, however, how far a considerable expansion of credit is compatible with a stable value of the mark. It will obviously depend on the relation between credit expansion at home and abroad, and on the further development of Germany's balance of payments, into which enter many unknown variables and a good deal of *imponderabilia*. But these reflections are already leading us from the simple narrative of German business cycle policy to a consideration of the theoretical questions involved, to which we may return later.

The second school of thought, from which more recent German business cycle policy has emanated, differs from the first school in its diagnosis of the crisis, at least of its later phase. Making due allowance for the multiplicity of views inside this wide group, it is fair to say that the present author's diagnosis [1] constitutes a rough reflexion of the prevailing attitude. It involves rejecting both the wild chiliasm of the anti-capitalistic radicals and the orthodoxy of the first school. It may be summed up as follows: The present crisis is to be fundamentally and primarily regarded as a *konjunkturelle Krise, i.e.* as the inevitable reaction of credit expansion and accumulation of capital in the leading countries. When regard is paid to the unprecedented scale on which credit expansion and accumulation of capital had taken place a very painful reaction was to be expected. But had it not been for an unfortunate coincidence of various accidental factors there would have been nothing to prevent the emergence in due course of a new equilibrium. These accidental factors, which play such a prominent rôle in the more popular explanations of the crisis and need not be repeated here, are responsible for the apparent fact that a distinct degeneration of the crisis set in. We have now to distinguish between a primary and a secondary phase of the crisis. The latter is characterised by a *circulus vitiosus* which constantly interferes with the attainment of a new equilibrium. There is reason to believe that as early as 1931 it was this secondary degenerated crisis with which we had to deal.

In our view, the original process of liquidation and adaptation, combined with these accidental factors, has set into motion a cumulative process of recession, the conditions of economic disequilibrium being continually reproduced on an ever-declining level. The "deflation," to use an ambiguous term, connected with the primary crisis may be truly regarded as the unavoidable form in which the processes of liquidation and adaptation take place, so that a policy designed to counteract deflation will merely result in a prolongation and an aggravation of the crisis. The experiences of the United States in 1930 seem to corroborate this statement. Up to this point the theory of the first school is valid. But the deflation connected with the secondary crisis is quite different in nature. Its *raison d'être* lies no longer in the

[1] For a detailed account of his views the reader may be referred to *Krise und Konjunktur,* by W. Röpke, Leipzig, 1932. It would be difficult to supply any references as to the views of the other members of the school, since they are scattered in a number of articles and are not yet crystallised in book form (*e.g.* H. Neisser, W. Lautenbach, G. Haberler and others). Much still remains, in accordance with high tradition, at the stage of oral teaching.

impossible situation created by the preceding boom. It results from a set of causes which only came into being as a result, and during the course, of the secondary crisis. This line of causation may be described in various ways. The matter may be put shortly by ascribing the whole trouble to the disastrous destruction of that harmony between the process of the formation of income and the process of the use of income which constitutes an essential condition of general economic equilibrium. The discrepancy tends to intensify itself and leads to a continuous fall of demand on commodity markets, which in turn tends to bring about a yet further fall. The stream of money flowing to economic units—enterprises and individual households,—and flowing out again, is interrupted. Sums which flow in do not flow back to commodity markets, or flow back either only partially or after long delay. I resist the temptation to demonstrate this by means of a kind of new *tableau économique,* which would certainly be extremely desirable, and I merely point for purposes of illustration to those numerous firms which are holding themselves as liquid as possible instead of using their funds for replacing old machinery, far less for making additional investments, or to those households which are actually hoarding money or leaving their banking accounts idle.[1] In all these cases money is left unspent on consumption goods, without any compensation for this non-consumption (" saving," in the broad sense of the term which will be familiar to the readers of Mr. Keynes' *Treatise on Money*) taking the form of investment in capital goods. Every attempt on the part of producers to get rid of their surplus of production, resulting from the fall in demand, by lowering prices and costs and by curtailment of output will necessarily frustrate itself. For it will lead to a new fall in demand so long as the discrepancy between the formation of income and the use of income is not overcome, either by new investment or by a decrease of " saving." The general economic contraction brought about by this process of autogenous deflation completes the vicious circle by impairing the chances of increased investment; and that for two reasons. In the first place, the general " crisis of confidence " which now breaks out serves as a kind of death-blow to the willingness of entrepreneurs to undertake new investment, while secondly, this crisis

[1] The ideas implied by this statement deserve a special treatment in order to clear up some very common misconceptions about the behaviour of the banking system during the different phases of the business cycle. That the rigidity of banking accounts is one of the main symptoms and, at the same time, one of the main causes of the deflationary process which I have in mind will, however, be accepted here without further analysis.

of confidence is very apt to lead to the most fatal disturbances to the money and credit system. It may be remembered that, ever since the international liquidity crisis in 1931, the banking system has remained in a state of paralysis in which its willingness to finance new investment has been almost negligible. There ensued, furthermore, serious congestion of the monetary circulation; and the aggravation of the confidence crisis, together with the precipitous drop of prices and the progressive disintegration of the world's economic system, made every idea of new investment seem nothing short of foolish. Especially important in this connection was the havoc in the securities markets. This brings us to a problem on which curious notions have been held, no less in Germany than elsewhere. Even the more trained economists do not seem completely to grasp the real importance of this factor, and some observations will not perhaps be out of place. If equilibrium is to be restored by an increase of investment (which is one of the two alternatives, the other being a decrease of "saving") it can be possible only on two conditions. In the first place, the banking system must be prepared to grant new credits, or, in other words, to restore the dimensions of balance-sheets. The extent to which it will do this is greater the larger are the turnovers on individual accounts, and this in turn depends on a revival of general economic activity, in regard to which the willingness of the banking system to enlarge the volume of credit plays a prominent part.[1] It may be fairly said that in the leading countries the banking system has reached this stage. But the various unsuccessful attempts made in the United States at pumping additional credits into the arteries of the national economy have proved that the willingness of the banking system to *give* credits does not in all circumstances suffice to bring about a credit expansion, and that a second condition must be fulfilled. These experiences have verified the surmise that even a rate of interest which approaches zero may be insufficient, under the conditions of a severe depression, to induce entrepreneurs to enter upon new investment. If in such a situation the elasticity of demand for credit becomes almost absolutely rigid, attempts at credit expansion will not lead to the desired expansion of the total demand for commodities, but merely to an increase of general liquidity. Now the reluctance of entrepreneurs to enter upon

[1] The thought of this mechanism operating in reverse provides a more intimate insight into the fatal working of the *circulus vitiosus* of the secondary crisis. But it also shows how the *circulus vitiosus* can be converted into a *circulus salutaris* by credit expansion once the initial start has been effected.

new investment is due not only to the confidence crisis, to the recession of prices, and to the over-investment of the previous boom, but also to the fact that entrepreneurs will not dare, for the purpose of long-term investment, to have recourse to short-term credits—almost the only available method of financing new investment at the present time—unless a marked recovery of the stock exchange points to the possibility of an early consolidation of the preliminary advances of the banks. That is the reason (apart from the immediate psychological effects) why rising stock markets are a necessary condition for general recovery and why every measure and every event which has the effect of driving the public away from the stock markets constitutes a serious blow to recovery.[1] The same line of reason suggests that it is well-conceived policy—the very reverse of reckless—for central banks or similar authorities to take the initiative by means of heavy buying, in preventing a total collapse of securities markets.

This somewhat sketchy analysis, which will sound familiar to many readers, would be incomplete without a brief reference to the very pertinent question of what is the possible end to the cumulative process of recession. Bitter experience has taught us in recent times that, in the course of such a process, production may shrink to seventy, sixty or even fifty per cent. of the original volume, and we may well ask whether there is any mechanism to prevent a shrinkage to ten per cent. or less. In pure theory such a monstrous thing is not entirely unthinkable. Yet we may congratulate ourselves that a kind of automatic safety brake is provided against the final emergency. As economic contraction proceeds there finally comes a moment when, even without any increase in the rate of investment, equilibrium is restored owing to the rate of saving having been pushed down to the level of the rate of investment. This occurs when on the one hand general impoverishment forces people to consume savings and on the other hand the increasing budget deficit cannot possibly be covered either by reducing expenditure or by increasing taxation, except at the expense of a revolution. The crisis has now quite definitely touched bottom. Although such a statement will meet with fierce criticism and although the author is well aware of its dangerous implications, which it is not possible to deal

[1] It must not, on the other hand, be forgotten that a rising stock market provides a tremendous relief to the banks by improving their liquidity. This it does in two ways: (*a*) by offering the banks an opportunity for turning their own securities into cash, and (*b*) by doing the same for their debtors, thereby thawing their frozen assets.

with here, there is no getting away from the surprising conclusion that the one situation in which a budget deficit cannot possibly be avoided is precisely the situation where it is highly salutary. What this proves is that those are after all right who maintain that even the severest crisis will cease in the end—provided that the political and social framework will stand the formidable pressure.

This analysis will seem rather bold and even somewhat frivolous, but truth sometimes has the embarrassing quality of being bold and naked. For my own part I can detect no flaw in the line of reasoning that I have sketched out. Refinement is undoubtedly necessary if it is to meet all possible criticism, but this refinement must be achieved elsewhere. Meanwhile, an attempt must still be made to show that the abyss which seems to separate the two schools—the one restrictionist and the other expansionist—is by no means unbridgeable and that, having regard to the unsatisfactory manner in which scientific warfare in this matter is to-day conducted, by means of reciprocal abuse which recalls the heroes of the Iliad, it should be possible to effect a reconciliation which would be something more than a weak compromise. The restrictionist school may be compared to a well-meaning and experienced mother who, standing no nonsense, accepts the diagnosis that her patient is still suffering, even after long years of sickbed, from the effects of his debaucheries and feels it her duty, for fear of a fatal relapse, to harden her heart against his desire for plentiful food. According, on the other hand, to the expansionist school, the lamentable condition of the patient has no longer anything to do with the debaucheries of the distant past, but is the result of a perilous edema brought about by a long process of under-nourishment. Both diagnosticians, standing by the bedside of the poor patient, are fervently protesting that the patient will be killed, the one being accused of luring him on to fresh debauchery, the other of leaving him to die of hunger—and that with the best intentions in the world. Everybody will agree that this sort of thing must be stopped if we desire progress. To this end it should be pointed out that each school comprises a variety of opinions and that the most satisfactory solution of the whole problem will be found in a judicious combination of all that is essentially sound on both sides. And so we are finally compelled to perceive that the division into two schools is rather clumsy and superficial, standing in the way of a better understanding of the problem. In Germany this has been realised for some time as a result of the modifications

to the expansionist philosophy which are natural in a country like Germany, as contrasted with one of the great creditor nations. I, for one, cannot, and will not, deny that the restrictionists are absolutely right in their diagnosis of the primary crisis and in their opposition to premature attempts at re-expansion. And I am certain that their general attitude will once again become extremely sound when the circle has swung round and a new boom of an inflationary character is in sight. Furthermore, the majority of expansionists, at least in Germany, cannot but offer their sincerest approval of the restrictionists' insistent demand that the machinery of our economic system should be cleared of the cart-loads of sand which, in the form of tariffs, price-fixing, subventions, valorisation schemes, foreign exchange control, manipulation of wages, monopolism, etc., has been so liberally thrown into it during the last decade. All this goes to show that the advocacy of a policy of expansion is not inconsistent with that of a policy of "*Auflockerung*," which wise expansionists will indeed favour. Expansion and "*Auflockerung*" are not only compatible with each other, but they ought to be combined if the best possible result is to be guaranteed. It can, moreover, be said that expansion is necessary to save capitalism from complete decay and to pave the way for a successful fight against the all too prevalent hysteria of to-day. Another very serious confusion of ideas arises from the completely erroneous, though popular, notion that advocacy of expansion means advocacy of a drastic rise in the general price level. This notion seems to be a reversal of the "price-level complex" which, during the last boom, led so many to regard the behaviour of the price-level as the guiding principle of credit policy. It is true that it is impossible to imagine a business revival without an expansion of credit. That is what the restrictionists must take to heart. But it is easy to imagine—and this is what some of the expansionists must take to heart—a business revival without a sharp rise of the general price-level. Moreover, it is to be feared that if a higher general price-level is the objective, business cycle policy may become distorted. This is exactly what has recently happened in the United States. There is no reason whatsoever why the Americans should tamper with the exchange value of the dollar to bring about a marked recovery, and there is every reason why they should have refrained from doing so in order to save themselves and the rest of the world a great deal of unnecessary trouble. All this seems to be the result of a wrong interpretation of the crisis, in just the same way as the expansionist credit

policy of the last boom resulted from a wrong interpretation of the boom. The boom as well as the crisis are not so much phenomena of price-levels as phenomena of expansion and contraction of production (especially of the production of capital goods). The sensational fall of prices of raw materials and agricultural products must not be allowed to conceal the fact that the general decline of prices is merely a rather weak reflexion of the process of general economic contraction, as expressed in the statistics of production, incomes and unemployment. The obvious reason is that the effect on prices of the contraction of demand is to a great extent balanced by the contraction of the volume of production, with the marked exception of the greater part of the production of raw materials and agricultural products, where precisely the opposite movement has developed. Since the downward trend has, on the whole, been primarily a phenomenon of volume instead of one of prices, the same will be true of the upward trend. The process of contraction is not counterbalanced by reflation (meaning a policy aimed at raising the general price-level), but by re-expansion, apart once again from the special problem provided by the markets in raw materials and agricultural products. The policy of credit expansion—by which is meant an *effective* expansion of credit, leading to an expansion of the volume of production, incomes and demand—can be carried fairly far without bringing about a marked rise of the general price-level. There is no foundation for the objection that the problem of overburdened debtors will then remain unsolved, because a solution of this general problem depends mainly on restoring a reasonable proportion between the volume of indebtedness on the one hand and the volume of production and turnover on the other hand.

These are reflections of my own, but it so happens that in Germany the policy of expansion has very rarely been conceived, even by expansionists, as a policy of reflation, and that this idea, which seems so popular in the Anglo-Saxon countries, has always been regarded as somewhat strange in Germany. And no official statement that business cycle policy must aim at a rise in the general price-level has been issued. This is not, of course, to suggest that in Germany there is a more mature understanding of the whole problem: there are not more than perhaps a dozen men whose insight is sufficiently deep to enable them to provide a scientifically satisfactory explanation of official policy. But Germany's peculiar position as the greatest debtor country prevented her from the start from pursuing a policy of expansion

beyond the point where an adverse development of the balance of payments would upset external equilibrium. That is what the whole problem of expansionist policy, when conducted on a national basis, boils down to, leaving some countries a much wider scope than others—a vast scope to a country like the United States and a relatively small one to a country like Germany. Now the trend of the level of domestic prices is a very important factor in the development of the balance of payments. Every care has therefore had to be exercised in Germany to prevent the policy of expansion from raising the domestic price-level. This can be achieved by judiciously limiting the extent of credit expansion and by a combination of expansionist policy with certain measures aimed at breaking up the rigid parts of the price-cost structure (rigid wages, monopoly prices, tariffs, etc.). But there the problem of a national policy of expansion does not end, for whatever happens to the domestic price-level, a serious strain on the balance of payments is bound to result from an internal business revival, engendering as it does increased imports of raw materials without a simultaneous rise of exports. In order to bridge this gap a country like Germany, provided with inadequate reserves of gold and devisen, must for a couple of months rely on foreign credits. The difficulties are increased if Germany's export trade continues its present discouraging trend. Finally, it must be understood that the whole philosophy of expansion is based on the assumption that a country embarking on such a policy does not at the same time try to transform its economic system on autarchistic or socialistic lines. These would completely destroy the framework of economic reactions on which the philosophy of expansion is based.

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SOVIET ECONOMIC DEVELOPMENT SINCE 1928

I

UNTIL the autumn of 1928, the Soviet Government was actively engaged in the task of reconstructing the economic machine. During the anarchic years of civil war and intervention, basic capital had been at best neglected, at worst destroyed. Even in 1925, depreciation from the level of 1913 was certainly not less than 25 per cent. The years of "war communism" had left behind a legacy of abandoned fields and decimated herds. The period of recovery lasted from 1921, when the New Economic Policy was introduced, until 1928, by which time the means of production had been largely restored to the pre-war level of efficiency, with agricultural equipment lagging not very far behind. Quite apart from the inauguration of the famous Five-Year Plan, therefore, the year 1928 constitutes an important landmark in Soviet economic history.

The idea of "planning" was not a new conception, for no sooner had the mechanism of capitalist economy been jettisoned and the free working of supply and demand interrupted than it became clear that the new society would have to plan or perish. Planning, though it received comparatively little attention in the economics of Marx, was one of Lenin's favourite themes in the early days of reconstruction, and there had been annual "control figures" to guide the development of industry since the autumn of 1925. The chief significance of the Five-Year Plan lay, not in the fact of planning nor in the longer period of its application, but rather in its daring tempo, far exceeding the pace of achievement in the halcyon days of capitalism; in its clearly stated objectives, and in its powerful appeal to the popular imagination. It was a great deal more than an economic forecast; it was a focus for mass ambition and a recognisable goal to which the steps of millions of workers could be constantly directed. Indeed, it was not merely a goal, for the estimates of the Plan were things to be exceeded. The original figures were several times revised in an upward direction and new undertakings were constantly being started which did not feature in the original Plan at all.

The *rationale* of this first vast attempt at national planning would be more widely understood if it were generally recognised

that the aims of the Plan were not primarily economic at all. The Bolsheviks undoubtedly desired to industrialise their predominantly agrarian country because of the material benefits which, in the long run, industrialisation would bring, but they could never have justified the "mad tempo" of the Plan and the grim sacrifices which they called upon the workers to make, on economic grounds alone. Primarily, the Plan was conceived for strategic ends—to place Soviet Russia for ever out of danger of capitalist aggression. It has been a fortunate accident of history that industrialisation and safety proved to be synonymous terms.

In the realisation of their Plan, the Bolsheviks paid the usual penalty of the pioneer. There were no precedents to work upon; no indications of where the greatest dangers lay. They were faced with the necessity of evolving a vast machine of co-ordination and contact in a country with no previous experience of a complicated economic life. Among the difficulties which they had to combat were the inbred dilatoriness of the East, the almost complete absence of technical skill, individual carelessness, waste, deliberate sabotage, facile optimism, shortage of materials, lack of working discipline, excessive mobility of labour and inadequate means of communication.

The Plan was originally conceived in two variants, the more ambitious (which was adopted by the sixteenth congress of the Communist Party in 1929) envisaging (*a*) no serious harvest failure between 1929 and 1933; (*b*) an expansion of world economic intercourse; (*c*) an increased facility in obtaining long-term credit; (*d*) a marked improvement in the quality of output, and (*e*) an appreciable reduction in the costs of defence. In point of fact, the 1931 harvest was disastrous; world trade and prices slumped, long-term credit was restricted, political tension, first over China and then over Japan, necessitated an enormous expansion of military expenditure, and the improvement in qualitative indices fell constantly behind the Plan.

II

The chief aim of the Plan was to equip Russia with such a complete industrial machine that, *in an emergency*, she would be independent of outside sources of supply by 1933. Such developments as occurred in agriculture were incidental to this greater aim. If Soviet statistics are to be relied upon,[1] the verdict of

[1] The possibility of *deliberate* inaccuracies at the centre for political purposes can be entirely disregarded, since the official figures play a vital part in the construction of the Plan, which any serious non-compensating error would speedily reduce to chaos.

history will be that, broadly speaking, the main objective was reached. There are still many complicated varieties of machinery which only the highly skilled capitalist countries can manufacture satisfactorily, but if a policy of economic autarchy were *forced* upon Russia, she would easily survive to-day. The relative extent of her development is best appreciated if it is considered that in four years she has moved from tenth to sixth place as an electric power producer: sixth to second place as a producer of pig iron: fourth to second place as a producer of machinery, and third to second place as a producer of oil, and that she is now the greatest producer of agricultural machinery in the world. Among the world's great industrial countries she ranks second. As regards the absolute extent of her growth, it is sufficient to know that the volume of industrial production in 1932 was more than double that of 1928. No previous industrial revolution has approached such a stupendous progression. As regards the *nature* of the changes, however, Russia in most respects followed the well-beaten track of former industrial revolutions. Productive technique was modernised and mechanised, mass output taking the place of small "artel" production, and machinery of hand labour. In 1928, 85 per cent. of the coal of the U.S.S.R. was obtained by hand: now two-thirds of the industry is equipped with machinery. Prior to the Plan, the iron and steel industry was only slightly mechanised, while in the timber industry and in the production of many building materials, manual labour predominated. By 1932, mechanisation had reached an advanced stage in the oil, iron and steel, machine and food industries, while many of the light industries had been translated from handicraft to mass production methods. The first machines and the technical assistance required for their smooth running were imported into Russia in return for food and raw materials or on credit. The Bolsheviks are quick to recognise the help they have derived from foreign "experts," who for the most part were highly paid and highly honoured for their skill. During the years 1928–32, imports of machinery from Great Britain alone rose from £1·7 millions to over £6 millions.[1] But the peculiarity of machinery, as Great Britain has found to her cost in other connections, is that it has the power to reproduce itself. Internal machinery production (at 1926–27 prices) rose in value from 1,406 million roubles to 5,253 million roubles, the increase being 157 per cent. of the planned estimates. Such success brought a measure of failure

[1] Figures for 1932, estimate of Soviet Trade Delegation.

in its train, for in general the quality of production was low and much of the new machinery was subjected to the grossest mishandling. It hardly needs emphasising that a proletariat which consists in an appreciable measure of " trained " peasants is hardly more to be trusted with complex machinery than a schoolboy with the works of a clock. Inevitably, the repair shops found themselves unable to cope with the waiting list of breakages, and with an unceasing and increasing output of new machinery, there was little chance of catching up arrears. By the end of 1932, the problem of repairs was still crying urgently for bold and swift attention. No less important than the manufacture of machinery was the development of an adequate supply of raw material from home sources. We have already noticed the extent of mechanisation in such raw material producing industries as coal, iron and steel, oil and timber. Each of these industries had its own special problems and the output of the coal industry in particular fell consistently behind the Plan as a result of the excessive mobility of labour in the Donbass district. Nevertheless, over the four years 1928–32, coal output increased in value from 375 to 659 million roubles (at 1926–27 prices): timber production from 837 to 2,400 million roubles: oil production from 583 to 1,413 million roubles, and ferrous metals from 706 to 1,264 million roubles. The value of chemical production rose from 348 million roubles to 1,040 million roubles. The problem of supplying the necessary power to keep pace with the vast increase in machinery and raw materials was simplified by the rapid development of electricity. The capacity of all electric power stations at the end of 1932 was 4,567,000 kilowatts: at the end of 1928 it had been no more than 1,874,000 kilowatts. Apart from the transformation of technique and the development of natural resources, the drive for industrialisation expressed itself in a spectacular volume of new construction. In no period of history since the Arabian Nights have vast structures risen so swiftly in the plains. Adequate treatment of this aspect of the Plan resolves itself into a recitation of the names of cities which in 1928 existed only in the minds of their creators. In that year, the writer of this article walked over an expanse of pleasant agricultural country on the outskirts of Kharkov, the Ukrainian capital; in 1933 he looked over the great tractor factory, HTZ, in full process of production on the same site. That metamorphosis multiplied by hundreds, even by thousands, provides a measure of recent constructional activity.

There remain at least three further features of industrialisation which should be noted. Since 1928, new industries, vital to the maximum of self-sufficiency, have been set up in large numbers. Some of them—as, for instance, the production of caterpillar tractors, cotton-pickers, electric cars, blooming mills, linotypes, and complex optical instruments—were not provided for in the original Plan. High quality processes have been instituted and the most complicated technical problems tackled with the help of foreign specialists.

Secondly, there has been a striking geographical redistribution of industry. Before the Revolution, especially, industrial production was concentrated in a few large centres like Petersburg and Moscow, while the outlying districts provided such raw material as was required. Since 1928 there has been a strong effort to develop the autonomous republics, lest some parts of the Union should lag unduly behind the others. The most striking development was the construction of a second coal and metallurgical base in the Urals, though the object of this step was as much strategic as economic.

Finally, unremitting efforts were made to raise the efficiency of the transport system to a level more in keeping with the new burdens which it was suddenly called upon to bear. Even so, congestion was only partially relieved, though statistically the progress was impressive. The length of railway line in operation increased from 76,900 to 83,400 kilometres: freight traffic rose from 93·4 to 169·3 billion ton-kilometres, and passenger traffic from 24·5 to 84·1 billion passenger kilometres. Important technical improvements were effected, both as to equipment and methods of operation.

III

In agriculture as in industry, the year 1928 marks a turning-point in Soviet economic history. Since the adoption of the New Economic Policy, the relationship between the town worker and the peasant had been based (theoretically at least) on the idea of reciprocal trade, manufactured goods being given in exchange for agricultural products. A highly complex machine of agricultural co-operation had been set up in order to supply the individual peasant with tools, seed, fertilisers and assistance, and to buy back the fruits of his toil under contract. The average level of cultivation still remained deplorably backward, however, and the inefficiency of production had been aggravated by the first Land Decree, which permitted the breaking up of

the farms of the "pomestchiki," or wealthy landowners, who had formerly provided the bulk of the marketable surplus. The average holding in 1928 amounted to no more than 12 acres. It has been officially estimated that in that year some 74 per cent. of the spring grain was ploughed with wooden ploughs: that the harvest from 44 per cent. of the grain area was cut with scythes or sickles, and that the produce of 40 per cent. of the area was threshed by flails or other manual methods. The "three-field" system of strips, with all its accompanying defects, was still widespread.

This state of affairs was highly unsatisfactory to the Bolsheviks on the threshold of the Plan. They needed a higher agricultural output (*a*) to feed the new town proletariat which would be brought into being under the industrialisation programme: (*b*) to provide a surplus of agricultural produce for export in order that machinery might be imported in exchange; (*c*) to provide the raw material for industry which otherwise would have to be imported, and (*d*) to raise the low standard of living in the villages to a level more in consonance with that of the towns. Moreover, since it was inconceivable that socialised industry could depend indefinitely on individualist agriculture, it was necessary to organise the villages on a collectivist basis in accordance with Communist ideology.

In the history of many countries it has happened that when the time seemed ripe for a speedy advance in agricultural technique the "rights" of the small peasant were roughly overridden. In Russia in 1928, as in England at the time of the enclosure movement, it was vitally necessary to enlarge the unit of cultivation and to provide it with a modern technical basis. The necessary resolutions were adopted at the 15th Party Congress in the winter of 1927–28. The *smitchka* based on reciprocal trade was set aside in favour of a policy whereby the peasant would give up the greater part of his produce in exchange not for manufactured goods but for the means of production—particularly tractors and machinery. In order to facilitate this organisation of large-scale units and their subsequent regulation, the individual peasant farm was to give place to "kolhozi" or "collective" farms, while "sovhozi" or State farms were to be set up in the "wide open spaces." In the former the land-workers would be co-operative producers, sharing what was left of the fruits of their labour after the Government had taken its portion; in the latter they would be agricultural civil servants, working as the State's employees for a wage.

In the early stages of collectivisation, the Bolsheviks proceeded cautiously, anxious if possible to persuade rather than coerce. The collective farms formed painstakingly in 1928–29 were given favoured treatment in the matter of supplies and most of them went ahead under diligent nursing. Some care was taken in proceeding from one stage of collectivisation to the next: from the "soz," or association for joint tillage without socialisation of the means of production, to the "artel" or "kolhoz" proper, where land, labour and the basic means of production were all socialised, and finally to the fully fledged "commune." Machine and tractor stations were set up to co-operate with the new collective units, some 55 per cent. of which were served in this way by 1932. In the winter of 1929, however, came the inevitable revolt from the more well-to-do peasants, as the tide of collectivisation encroached upon their holdings. The friction was aggravated by the zealous indiscretions of local Party members, by now in full cry towards "mass collectivisation." At this period the slaughtering of cattle and other acts of sabotage reached such proportions that Stalin felt it necessary to publish a pamphlet entitled "Giddy with Success," in which he roundly reprimanded the enthusiasts and demanded a reduced tempo and consolidation of the ground already won. The harvest of 1930 was exceptionally good, but in the two following years the yield was adversely affected by drought and frost and the subsequent scarcity strengthened the hands of the "kulaks," who strenuously resisted "liquidation," and sought shelter in the collectives, where they carried on their anti-government propaganda *sub rosa*. The collectivisation movement had outgrown its strength: the central authorities had lost their grip, and many of the "kolhozi" were collectives only in name—a mere bunch of unquiet peasant farms under a new title. In 1932, "kulak" influence became so strong that it threatened to break the movement. The official indictment of the kulaks reads as follows: "Having penetrated into the collective farms, they attempted, by means of playing upon the proprietary habits and customs of the erstwhile small producers, to undo the victory of the collective farm system by means of undermining labour discipline, squandering and stealing crops, damaging implements and machinery and destroying cattle." Whatever the cause, the harvest of 1932 was again deficient, the Government relentlessly demanded its planned quota of grain and in the recalcitrant collectives there followed a winter of want, amounting in certain districts to widespread famine.

Early in 1933, a new orientation of policy was announced. In the first place, the Government would cease to take all the surplus, a step which had robbed the peasant of his incentive, and would impose instead a "tax in kind" which would be known in advance and not subject to alteration. The peasants would be free to dispose of any surplus as they pleased. In the second place, fresh Communist blood was pumped into the collective system to spread the virtues and advantages of co-operative production and Bolshevik technical methods, and incidentally to keep an eye open for *saboteurs*. It is as yet somewhat early to form any clear opinion as to the success of the new measure, but there is complete confidence in Moscow that the agrarian troubles have passed their peak and that the next few years will see a steady advance in agricultural output. The peasant certainly appears to have made some response already, for his relations with authority are better than for some time and the harvest outlook for 1933 is bright.

As a matter of record, it is worth while noting that whereas in 1928 the collective farms sowed 2·7 per cent. of the total sown area, by 1932 this proportion had risen to 68 per cent. The 200,000 odd collectives embrace 61½ per cent. of all holdings and about the same proportion of draught animals. The area sown by the "sovhozi" rose from 1,735,000 hectares in 1928 to 13·5 million hectares in 1932, of which 9·5 million were under grain. The average individual peasant holding fell from 4·5 hectares to 3·2 hectares in the period 1928–32, but the average collective farm area increased from 42 to 434 hectares and the average state farm from 544 to 2,303 hectares (1 hectare = 2·7 acres). Side by side with the growth in the size of units went the increase in mechanisation. The number of tractors in agriculture rose from 26,733 on October 1, 1928, to 148,480 on January 1, 1933. At the same time there was an enormous extension in the supply of threshing machines, grain harvesting, sowing and planting machines and cultivators. If the agricultural Five-Year Plan has done little else, it has undoubtedly provided the basis for an enormous expansion in agricultural output if ever the peasant decides to co-operate whole-heartedly with the new regime. Indeed, in those exceptional "kolhozi" where such complete co-operation was forthcoming, there has already been a notable advance both in living standards and in security.

IV

To deal at all adequately with the financial mechanism by means of which the Soviet Government was able to allocate its resources (*a*) between the production of capital goods and consumers goods and (*b*) between one producer and another, would require the space of a volume rather than an article. It must suffice to say that during the period under review the budgetary system mobilised and disbursed some 69 per cent. of all the resources of the unified financial plan (the remaining portion being distributed through the credit system and directly by the different branches of economy), and that budget revenue rose from 5·21 billion roubles in 1927–28 to 30·49 billion roubles in 1932, while the revenues of the "unified financial plan" rose from 13·0 billion roubles in 1928–29 to 44·6 billion roubles in 1932.

The chief interest of the Soviet finance plans during these years, apart from the tremendous growth which is common to practically all Soviet economic indices, lies in the extent to which serious maladjustments have been avoided. Such difficulties as occurred arose out of the continued tendency for costs of production to exceed planned estimates and output of final goods to fall short of expectations. Wage payments were intended roughly to equal the value of an estimated volume of final goods placed on the market at fixed prices, but in point of fact the volume showed a short-fall while wages proceeded "according to plan." The extra costs incurred by industry were apparently met by credit inflation. Prices of final goods rose (by decree). but not to the extent normally associated with a period of inflation under capitalism. In consequence, there was an acute goods shortage, and a superfluity of purchasing power which showed itself in rationing, queues and sky-rocketing prices on the diminutive "free" market. This maladjustment, which, it should be noticed, did not involve any reduction in living standards which could have been avoided—as, for instance, through the failure of the distribution mechanism—was to a large extent rectified by a rise in contributions to State loans from 648 million roubles in 1929 to 2,000 million roubles in 1932. A timely slowing down in the rate of wage increases, corresponding to the short-fall in output, would, of course, have been equally effective and would not have involved the Government in heavy interest charges which may become a minor "political" problem in the future. There was not, at any time during the

four years, serious danger of a breakdown in the financial mechanism. The prevalent disease of capitalism—a plethora of unsaleable stocks—was entirely avoided, not merely because of Russia's comparatively small output per head, but because the Plan took the necessary steps to see that purchasing power equated with the value of consumers' goods available.

V

Since the Five-Year Plan conspicuously ushered in a period of enforced "saving" on an unprecedented scale, it is not surprising that the improvement in living standards was much less impressive than the increase in constructional equipment. Indeed, a visitor to Russia comparing visible standards in 1928 and 1933 could be forgiven for believing that the standard of life had actually fallen during the period of the Plan, especially since many of the Russians he spoke to would emphatically agree with him. In this instance, however, statistics probably give a more truthful answer than personal observation. In 1932 the gross production of the industries producing articles for consumption amounted to 187·3 per cent. of the 1928 total. During the same period, population increased by a little under 8 per cent. Even allowing for a rise in the proportion of the total output sent abroad, there must have been an appreciable aggregate improvement in supply, though the advance per head may well have been microscopic. A vast increase occurred in the output of boots and shoes, for instance (production in 1932 being three times greater than in 1928), but the supply is still no more than half a pair per annum per head. On the basis of the 1913 output, however, each individual would have had a pair only once in seventeen years. The average annual wage rose from 703 roubles per annum in industry in 1928 to 1432 roubles in 1932. No reliable information is available as to the rise in the retail price level, but it was certainly appreciable. A more tangible benefit was a shortening of the working day from 7·9 hours in 1928 to 7 hours in 1932. As regards housing, new floor space aggregating 22,264 million square metres was made available in the four years. On the other hand, the urban population increased by 11·1 millions, so that housing conditions in some of the towns, at least, may well have been worse at the close of this burst of construction than at its inception. One of the most significant factors was the steady decline in the death-rate throughout the period.

Unemployment ceased to be a serious problem at an early stage of the Plan. Soviet economy was largely insulated from the cyclical movements common to capitalism and, as we have seen, the method of planning distribution ensured that all stocks would be regularly consumed and that, local maladjustments excepted, all plant would therefore be constantly working to capacity. Unemployment was virtually confined to beggars, speculators, wandering peasants and all those workers who were moving from one occupation to another of their own volition. Strenuous efforts were made by propaganda and regimentation to check this extreme mobility of labour, with some success.

VI

Summing up, it is safe to say that the most important feature of Soviet economic development since 1928 was the provision of a vast industrial plant based on the most modern technique, the whole amounting to an industrial revolution of almost unbelievable scope and depth. The second feature was the technical advance in agriculture, involving consolidation of holdings and the mechanisation of methods. The third feature was the solution of the problem of distribution which in the capitalist world makes it necessary for poverty to exist side by side with abundance. Finally, though the standard of living was not visibly raised, because of the vast size and initial backwardness of the population, the material background for an immense future advance was provided.

It is equally safe to say that the chief problem which faces the Soviet Government to-day is the task of providing a personnel with sufficient mechanical skill to handle and repair the vast new machines without getting in arrears. The Bolsheviks are alive to this necessity and "Master the machines" has been made the first slogan of the new Five-Year Plan.

Much has been said and written—probably too much—about the "success" or "failure" of the first Five-Year Plan. Such uncompromising terms cannot be used, with any approach to truth, of a change which will go down in history as one of the greatest enterprises to which man ever set his hand in any country. This only can be said of the Plan—that in broad outline it achieved a great part of what it set out to do, at a cost which was calculated and was deemed worth while.

PAUL WINTERTON

A RE-ANALYSIS OF THE 1928 NEW ISSUE BOOM

IN the December 1931 JOURNAL an anonymous writer gave a short account of the 1928 New Issue boom. A re-analysis of his data, supplemented from a study of the advertised prospectuses, may be of interest. A new valuation, as at April 1933, is also included in the summary tables at the end.

For six of the 283 issues listed in the original article no 1931 valuation was given, and as it is not certain that these were valueless they have been eliminated here.[1] An error of £300,000 in the cash subscribed for one issue [2] and some small arithmetical errors have been corrected. The totals, thus revised, become: 277 issues with cash subscribed amounting to £114,916,582 and a total value at 1931 of £68,133,615, the depreciation being 41 per cent.

The issues have been divided into (*a*) old companies, and (*b*) new companies. The "old" group is further divided into issues made by public companies existing as going concerns before 1928, issues "unconditionally guaranteed" by similar companies, and public issues by companies previously private. The "new" group is further divided into issues by companies formed in 1928 to acquire going concerns and stating certified past earnings of the business acquired, similar issues *not* so stating past earnings, issues by new Investment Trust Companies, and issues for new or virtually new ventures.

I

The issue of further capital by an old company in any particular year is largely an accident of time, and in the absence of definitely unfavourable market conditions a number of such issues will appear in any normal year. It seems desirable, therefore, to treat these separately. Of the 277 issues, 41 were made by public companies established before 1928; a further 4 were

[1] In the Market Value column four were described as "privately held," one as "no dealings," and against one no comment was made. The Cash Subscribed for these issues must therefore be removed to obtain true comparison of the two totals.

[2] British and European Timber Trust Limited.

fixed-interest stocks of new companies, fully guaranteed by old-established concerns. The figures are :

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
41 issues	£36,273,261	£27,825,522	23
4 issues	3,915,500	3,805,500	3
	£40,188,761	£31,631,022	21

For normal times such a depreciation within three years is scarcely a result to fire enthusiasm. But the years following 1928 saw an exceptionally heavy and general decline in stock and share prices. In this period the Bankers' Magazine index of representative securities fell from 127 to 109, and that of variable-dividend securities from 155 to 103, so that even " old capital " which had long reached the productive stage suffered severely at the same time. We seem justified in saying that, as a whole, the results of this group are surprisingly good. Nevertheless, the group average conceals some important individual results. One issue of over £1,000,000 was valueless by 1931 ; another of £316,000 was valued at £20,570. The issues have been graded according to their individual results in Table B (p. 459).

The third sub-group is comparatively small. It contains 11 issues by companies formerly private. In seven instances the public issue was greater than the previous issued capital. The summary totals are :

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
11 issues	£3,629,810	£2,601,420	28

Altogether, the 56 issues of established companies and their guarantees, representing 38 per cent. of the total cash subscribed in the year, show a depreciation of only 22 per cent. The depreciation of the 221 issues by new companies was some 52 per cent., or, excluding the Ford issue with the previous writer, 62 per cent.

II

We now come to the companies formed in 1928. In certain cases it was difficult to decide whether a company should be classified as " acquiring a going concern " or as a new venture. Where the business acquired seemed likely, on the claims of the prospectus, to contribute a substantial part of the company's future earnings, the issue has been placed in the acquisition group ;

where an acquisition was only a minor part of the company's declared objects, the company has been classed as a new venture.

The first sub-group contains 74 issues by companies formed to acquire one or more going concerns and stating certified past earnings. The great majority gave the profits for at least three years; a few gave shorter records where the concern acquired had not been operating so long. The summary figures are:

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
74 issues . . .	£28,886,266	£23,844,300	18
73 issues (excluding Ford Co.)	26,086,266	16,144,300	38

The individual results are graded in Table B.

There is a certain irony in the exclusion of the Ford issue, for it has since lost its huge appreciation and in the re-valuation at April 1933 actually shows a depreciation of over 15 per cent.!

Although these companies had as their object the acquisition of another concern, the term "acquisition" must not be taken too literally so far as the public investor was concerned. It might reasonably be expected that the capital raised by a company formed to acquire another business would be mainly expended on the purchase. Yet in eight instances, not a penny was so spent; and in another fifteen, less than half the cash publicly subscribed was paid in acquisition. Only some twenty-five of the issues can be regarded as made exclusively for the cash acquisition of another concern; and even here the acquisition was often far from complete. Indeed, a number of the flotations in this group appear as technical devices used by "vendors" for ends other than literal sale.

A common practice was for vendors to retain the greater part of the ordinary share capital of the new company in consideration of the sale. In many instances they received 80 per cent. and more of the ordinary capital in this way, whilst there were cases where the entire ordinary capital was retained or privately allotted. In such instances, the public issue was entirely or almost entirely in the form of fixed-interest Preference shares with little or no further participation, a small *pro rata* allotment of ordinary or deferred shares being sometimes offered in support of the preference issue.[1] Sometimes the

[1] For this purpose, the number of Preference and Ordinary shares offered was frequently the same, but whereas the former were usually £1 shares, the latter were often of much smaller denomination. One company offered 125,000 each of £1 Preference and 1*s*. Ordinary shares. The remaining 3,375,000 Ordinary

proceeds were required "for development," at other times the cash was handed over to the vendors in addition to the ordinary share capital. In the one case, the new company was a means of raising fresh capital advantageously to the "vendors"; in the other, it facilitated the sale, for a substantial cash remuneration, of a large preferential interest carrying fixed and relatively low participation in future profits, whilst still retaining to the vendors a more or less full residuary ownership.

Among those companies which did admit the public investor to their ordinary capital, some *did* thereby offer him an interest in a live and mature undertaking—even though they demanded a heavy premium for so doing.[1] There were other instances, however, more especially among those companies in the next sub-group, where the promoters relied far more upon attractive potentialities than on past results. The prospectus of the twenty-fifth new Gramophone-Radio flotation in 1928 informed its readers that, on a capital of less than £5,000, the business acquired had earned average annual profits exceeding £4,275. It confidently estimated that an additional £70,000 capital would produce a profit of not less than £62,585 in the first twelve months. This was "a conservative estimate based on past results." "Expansion" is altogether too mild a term for such a programme; it spells a veritable explosion. From the valuation it would appear that by 1931 the explosion had taken place and had left nothing of value in the debris.

Clearly there is a fundamental difference between an issue representing a genuine change of ownership, however partial, and one designed to raise fresh capital. A subdivision has therefore been made, separating those issues where at least 75 per cent. of the public cash was paid over to vendors from those where a smaller percentage or none was so utilised:

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
(A) Cash Acquisitions:			
33 issues	£20,804,416	£21,075,725	nil
32 issues (excluding Ford Co.)	18,004,416	13,375,725	26
(B) Other issues:			
41 issues	8,081,850	2,768,575	66

See also Table B.

shares were allotted to the vendors as consideration, and have proved a remunerative holding.

[1] One company offered its £1 Ordinary shares at 55*s*., and other issues were made at 100 per cent. premium.

Within this group of "acquisitions," in all the varied senses of that term, the data collected showed that, broadly speaking, the more successful businesses rarely offered a real participation in their future prosperity to the public. Of those companies which did admit the investor to a substantial equity interest, success was entirely confined to those which followed the procedure of a literal sale and received the proceeds of the public issue in payment. On the other hand, the companies which admitted the public openly to their ordinary shares in return for fresh working capital were uniformly unsuccessful.

III

Those "acquisitions" which failed to state certified past earnings of the business acquired may be dismissed briefly. Pigs in pokes have never been satisfactory business propositions. The figures are :

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
29 issues	£8,036,400	£366,448	95

IV

It remains to examine the results of the 1928 new ventures. Of the 118 issues falling in this category, nine were by newly-formed Investment Trust Companies, whose business, as distinct from that of the general finance company, consists almost wholly in the investment of their funds in stocks and shares. As the bulk of the cash subscribed to these nine issues was, therefore, ultimately invested in securities of long standing, these companies were new ventures only in a very limited sense, and they are therefore separated from the more truly new ventures. The totals are :

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
Investment Trust Co.'s 9 issues	£7,436,220	£5,059,000	32
Other New Ventures, 109 issues	26,739,125	4,631,425	83

The chief groupings among the 109 issues were: Gramophones and Radio, 21; Artificial Silk, etc., 10; Finance, 10; Films, Cinemas, and Theatres, 8; Portrait Machines, 7. Other

interesting undertakings include Safety Glass, 4; Coloured Photography, 3; Automatic Vendor Machines, 2. One company was to equip a "Mobile Seagoing Factory" to engage in fish-canning at sea.

V

The Gramophone and Radio companies are sufficiently numerous to warrant further details:

	Subscribed in 1928.	Market Value May 1931.	Depreciation per cent.
(i) Acquisitions with stated profits—4 . . .	£482,500	£266,500	45
(ii) Acquisitions without stated profits—4 . . .	455,000	nil	100
(iii) New companies—21 . .	2,772,000	35,000	99

If one very successful issue in section (i) is removed, the depreciation there becomes 80 per cent.

Of thirteen issues—acquisitions and new—by Artificial Silk and Hosiery companies, one of £1,170,000 showed 37 per cent. depreciation; the remaining twelve, representing cash subscribed to a total of £5,948,900, were valued at 3 per cent. of that sum by May 1931.

All seven Portrait Machine companies, which raised cash totalling £1,161,000, were valueless or wound up.

Of the 109 companies classed as "new ventures," twelve were formed to acquire foreign or other selling rights from parent concerns themselves floated in the same year! The results of this infantile procreation are appalling. None of the twelve offspring had any value by 1931, seven of their number being wound up. Of the eleven parent concerns, one stood at 2·4 per cent. of its issue value, eight were wound up, and two had no value.

VI

The analysis may now be conveniently summarised. A revaluation as at April 1933 is added, from which it will be seen that whereas the issues by old companies have maintained their 1931 figure, the depreciation of the new ventures has continued. Apart from the Ford issue, the acquisition group shows a small recovery.

The changes in Table B are interesting. The liquidation of companies has proceeded apace, but at the same time the number of issues showing appreciation has increased.

Table A

Results of Sub-groups.

	Nature of Issue.	No.	Subscribed in 1928.	Market Value May 1931.	Deprn. %.	Market Value April 1933.	Deprn. %.
Old Companies.	1. Old companies . .	41	£36,273,261	£27,825,522	23	£28,134,000	23
	2. New companies (guaranteed by old companies) .	4	3,915,500	3,805,500	3	4,091,063	nil
	3. Public issues by old private companies . . .	11	3,629,810	2,601,420	28	2,250,141	38
New Companies.	4. New companies acquiring businesses (past profits stated) . . .	74	28,886,266	23,814,300	18	19,349,917	33
	4. Do. (excluding Ford Co.) .	*73*	*26,086,266*	*16,144,300*	*38*	*16,987,417*	*35*
	**4a. Do. do. (cash acquisitions).*	*32*	*18,004,416*	*13,375,725*	*26*	*15,098,938*	*16*
	**4b. Do. (others)* . . .	*41*	*8,081,850*	*2,768,575*	*66*	*1,888,479*	*77*
	5. New companies acquiring businesses (certified profits not stated) . .	29	8,036,400	366,448	95	210,362	97
	6. New Investment Trust Companies . . .	9	7,436,220	5,059,000	32	3,680,206	51
	7. New or virtually new ventures	109	26,739,125	4,631,425	83	2,727,379	90
	Totals . . .	277	£111,916,582	£68,133,615	41	£60,443,071	47

Table B

Analysis of Results within Sub-groups.

	Sub-group.	No. of Issues.	Valuation, May 1931.									Valuation, April 1933.								
			Appreciated.	Unchanged.	Depreciation %.					No Price.	Wound up.	Appreciated.	Unchanged.	Depreciation %.					No Price.	Wound Up.
					0–20.	20–40.	40–60.	60–80.	80–100.					0–20.	20–40.	40–60.	60–80.	80–100.		
Old Companies.	1	41	15	3	5	8	4	4	1	..	1	20	—	4	2	2	4	7	1	1
	2	4	2	1	1	—	—	—	..	—	—	4	..	—	—	..	..	—	—	..
	3	11	2	-	3	2	1	1	2	—	—	2	—	1	4	2	1	1	—	—
New Companies.	4	74	7	2	9	10	12	10	11	10	3	15	—	8	2	3	12	18	5	11
	**4a*	*32*	*4*	*2*	*8*	*6*	*5*	*4*	*1*	*2*	—.	*12*	—	*4*	*2*	*2*	*7*	*3*	*1*	*1*
	**4b*	*41*	2	..	*1*	*4*	*7*	*6*	*10*	*8*	*3*	*3*	..	*3*	—	*1*	*5*	*15*	*4*	*10*
	5	29	—	—	—	...	1	2	9	5	12	—	—	..	..	—	2	4	2	21
	6	9	--	-	3	4	1	1	--	—	—	..	—	—	2	5	2	—	—	—
	7	109	1	1	1	5	3	4	19	29	46	—	—	2	2	1	7	16	13	68
	Total	277	27	7	22	29	22	22	42	41	62	41	—	15	12	13	28	46	21	101

* See text (p. 451).

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REVIEWS

The Theory of Wages. By J. R. HICKS. (London: Macmillan & Co. 1932. Pp. xiv + 247. 8*s.* 6*d.*)

"THE task which is attempted in this book," the preface tells us, "is a restatement of the theory of wages in a form which shall be reasonably abreast of modern economic knowledge." It cannot be said that the task is accomplished. A theory of wages must surely formulate a definite set of principles which determines the whole system of wage-rates (*i.e.* the various rates ruling in the various industries, occupations and localities) either in actual circumstances or, at least, in the hypothetical conditions selected for treatment. Mr. Hicks does not do this, nor, so far as I can see, does he attempt it. His discussion of the principles governing the distribution of the total labour supply between trades (and grades) is, for example, very cursory and inexact. It is easy to criticise the "Marshallian" view that the numbers employed in any trade result from a balance between demand and supply: that each industry or occupation absorbs first (in logical order) those workers who are most "suitable" to it in the sense that their productivity there is highest in relation to their "supply-price" (defined as the lowest wage which would suffice to secure or retain their services for that trade): that this supply-price differs as between different workers according to their earning-capacity elsewhere, their preferences for various kinds of work, their opportunities for acquiring any special skill required in this and other trades, their parents' wealth, their access to information about the prospects in various occupations, their parents' occupations, their social connections, their place of residence, their means of subsistence if unemployed, and so on—so that there is a sort of "supply schedule" of labourers for any trade: that each trade absorbs less and less "suitable" workers until the productivity of the last man taken on (who may be the most efficient if he has also the highest supply-price) is equal to his supply-price to the trade—so that, given each worker's system of preferences between trades, his aptitudes, opportunities, etc., and given also the conditions of demand, the distribution of labour between trades becomes determinate: and that the efficiency-rate established at this "margin of trans-

ference" governs the rate throughout a trade in so far as competition and mobility are effective within it,—so that the more "suitable" men get a rent or surplus above their supply-price corresponding to their greater degree of "suitability" for their occupation. All this, I say, offers a wide target for criticism. But at least it has the merit of recognising that the wage-rates at which various numbers of workers are available at any point (the conditions governing their supply) are no less important, as a determinant of the numbers employed and the rate paid there, than the rates at which they can be absorbed (the conditions governing the demand for them) and need equally prominent and equally detailed treatment, and it does lead to a definite statement of the conditions of equilibrium. Mr. Hicks puts nothing in its place. He is content to argue (pp. 76–80) that "wages throughout a nation are subject to the equalising force of movement in search of betterment" and that, although "the equalisation is not completely effective" even within a trade and is "much less effective" between trades (owing to differences in ability, costs of training which few people can afford, and so on), yet "there is in a free market some considerable degree of mobility between trades," with the result that a fairly stable system of relations between the rates in various occupations becomes established. He does not expound the principles which determine how far the movement goes—at what points it stops—and accordingly what distribution of labour and what system of rates become established. And in consequence he puts forward no criterion by which it would be possible to judge whether the number employed, and the rates ruling, in any particular trade or occupation or firm or locality are in equilibrium or likely to change. Similarly, he excludes from the theory of wages the reaction of earnings upon the total number of workers available. This may, no doubt, be defended on the ground that within the range of wage-changes encountered in practice, the reaction is too small to be taken into account; but, in view of possible migration when we are considering a single country and of the large numbers still living near the subsistence level when we are looking at the world as a whole, it needs more defence than the mere statement that "most modern economists" are content to regard the question of numbers as "belonging to the theory of population" (p. 2). Moreover, the reaction of wage-rates upon the supply of capital, though it is rightly given great prominence, is not worked out at all fully, so that even on the demand side the influences governing the general level of

wages are not described with any approach to exactness. In short, it is impossible to extract from Mr. Hicks's pages any precise and comprehensive formulation of the forces determining either the level of wages generally or the relation between the rates ruling in different industries, occupations and places. He has given us a series of more or less connected comments upon certain parts of, and problems in, the theory of wages—not a statement or restatement of the theory as a whole.

This is not, of course, a criticism. It means merely that his book is less comprehensive and less ambitious than its title and its preface might seem to imply.

It is divided into two parts. Of these the first (Chs. I–VI, pp. 1–147), which occupies rather more than half the space, is, in the main, a commentary on one element in the demand side of Marshall's theory of wages—the theorem, namely, that in a competitive *régime* "the wages of every class of labour tend to be equal to the net product due to the additional labour of the marginal labourer of that class" (*Principles of Economics*, VI. i. 8, p. 518). Save for the last chapter, its value is mainly pedagogic. It meets a number of the difficulties and objections which the Marshallian analysis is apt to arouse in the mind of a beginner. Mr. Hicks writes simple and lucid English un-encumbered by diagrammatic apparatus and, in these first five chapters, reduces his use of symbols to a minimum. Selections from this part of his work should, therefore, prove a serviceable adjunct to the ordinary text-books.

One could wish, however, that the author had carried out more completely his expressed intention "to bring into clear relief the extremely abstract assumptions on which alone it is rigorously true to say that wages equal the marginal product of labour" (p. 9). His statement of the doctrine as he interprets it does indeed expose several of these assumptions (though they are nowhere brought together); but it introduces one at least which is not necessary to the doctrine as it is ordinarily understood and gives too little prominence to another which is of fundamental importance.

To begin with the first and less vital point. Mr. Hicks takes the doctrine to mean that wages tend to equal the marginal product of the total quantity of labour "*available*" (*i.e.* on offer) and accordingly makes it depend on the assumption that all the labourers must be employed. "Wages, say the text-books, [we are not told which and where] tend to that level where demand and supply are equal. If supply exceeds demand, some men will

be unemployed, and in their efforts to regain employment, they will reduce the wages they ask to that level which makes it just worth while to take them on" (p. 4). There may, perhaps, be writers who argue thus, but I have not been able to discover that Marshall, to whom this version of the theory seems to be attributed (p. 5), is among them. His view surely is that, in competitive conditions, the marginal net product of a given number of labourers measures *the demand price for that number* (*i.e.* the highest wage at which that number can find employment), and that accordingly what the wage tends to equal is the marginal net product of the number *employed.* Whether this is the same as the number seeking employment depends on the conditions of supply. There is no reason why the number willing to work at the ruling wage, let alone a higher one, should not be greater than the number who can find work at it, provided that none of those who fail to get jobs are willing to work for less. Permanent unemployment is in no way inconsistent with the "marginal productivity theory" as expounded in Marshall's *Principles*,—or indeed in most other "text-books." Mr. Hicks is, however, justified in saying that the text-book discussions of wages pay much too little attention to the influence of unemployment, and that this whole subject urgently calls for further investigation.

Turning now to the second and more important point, Mr. Hicks does not, as it seems to me, give enough prominence to the dependence of the marginal productivity theory, as he states it, on the assumption of simple competition in a perfect market (or certain other highly abstract assumptions). He defines the value of the marginal net product which the wage tends to equal as the value of "the difference between the total physical product which is actually secured [by the employer] and that which would have been secured from the same quantity of other resources if the number of labourers had been increased or diminished by one" (p. 8). This is, in effect, the same as Professor Pigou's definition (*Economics of Welfare*, p. 135) and differs, though Mr. Hicks does not point this out, from Marshall's, which is the increase (or decrease) in the total value of the employer's output consequent upon his employing (or dispensing with) a small increment of labour (*Principles*, VI. i. 8, p. 521, and Mathematical Appendix, note xiv, p. 849).[1] The difference, of course, is that Professor Pigou's definition does not, while Marshall's does allow

[1] Marshall commonly speaks of the "net" increase "after allowing for incidental expenses," but that practice is not in point here.

for the reduction in the selling value of the rest of the employer's output consequent upon his putting a little more on the market:[1] it is only when this element is negligibly small as compared with the value of the additional product[2] that the value of the marginal net product on the two definitions is the same: and it is not negligibly small unless either (*a*) the employer can discriminate in the price he charges for different units of his output so perfectly that a small addition to his sales can be made without causing him to reduce appreciably the total charge for the rest of his output; or (*b*) the elasticity of the demand for his output is very large,[3] which it may be either (i) if the elasticity of the demand for the total output of the commodity he produces is very large,[4] or (ii) if he supplies only a small fraction of the total output of the commodity, competes freely with the other suppliers and sells in a market which is perfect in the sense that custom will be transferred to him (or from him) wholesale if his price differs from that charged by others to any the smallest extent. There is no tendency for the wages of a given type of labour to equal its marginal net product in the sense defined by Mr. Hicks unless one or other of these conditions is fulfilled (the third is the only one to which approximations are likely to be found at all frequently in practice and the only one with which Marshall concerns himself).[5] For the *general* condition for maximum profit is, of

[1] If x is the employer's output, p its price per unit, δx the (small) increase in his output obtained by employing a small additional increment of labour, and δp, a negative quantity, the change in price per unit caused by putting this on the market, $p \,.\, \delta x$ is the value of the marginal net product on Professor Pigou's definition, $p \,.\, \delta x + x \,.\, \delta p$ on Marshall's. In some circumstances, δp may be positive, but this possibility may be ignored here.

[2] $(p \,.\, \delta x.)$

[3] For where all units of his output are sold at the same price, the elasticity of the demand for his output is $-p \,.\, dx/x \,.\, dp$; *i.e.* the reciprocal of the ratio of the change in the selling value of the rest of his output to the value of the increment of output, with the sign changed.

[4] When the market is imperfect, the conception of elasticity of demand for the total output presents notorious difficulties, which cannot be considered here. For the present purpose it must suffice to say that in this case the phrase should be taken to refer to the part of the market which is served by the employer in question.

[5] Marshall indeed, while clearly bringing out the distinction between the addition which an increment of any factor makes to the value of its employer's output and the value of the addition which it makes to his output, and declaring it to be a "dominant fact in the theory of monopolies" and "in the case of any producer who has a limited trade connection which he cannot quickly enlarge" (*op. cit.*, p. 517 and p. 849), held that "when we are studying the action of an individual undertaker with a view of illustrating the normal action of the causes which govern the general demand for the several agents of production," we should "avoid cases of this kind" and "take our normal illustration from a case in which the individual is only one of many who have efficient, if indirect, access to the

course, that what Marshall called the employer's "marginal outlay" on that type of labour (*i.e.* the addition to his total outlay incurred by employing a small additional quantity of it) should be equal to the increase in his total receipts which he obtains by employing it—which we may perhaps, using a phrase adopted by Prof. Viner [1] and others in a rather different sense, call his "marginal revenue" from it. And if we are to say that the labour's *wage* (as distinct from the marginal outlay upon it) is to be equal to the value of its marginal net product, similar conditions are required on the supply side. For the additional outlay required to secure an increment of labour (or any other agent) includes not only the wage or price which the employer pays for it, but the change in what he has to pay for the rest of his supply.[2] This second element will only be negligible if either (*c*) an addition to the total quantity of the labour available [3] can be obtained without raising the wage offered for it or (*d*) our employer employs only a small fraction of the total supply, competes freely with the other employers for its hire and hires it in a perfect market,[4] or (*e*) the labour already in his service will remain without any considerable increase in wage and he can discriminate so perfectly in the wage he pays for different units of the labour that a small addition to the quantity he employs does not appreciably affect what he pays for the rest.[5] For practical purposes [6] we may say that the circumstances in

market": so that "for the purpose of illustrating a part of the general action of the laws of distribution we are justified in speaking of the value of the net product of the marginal work of any agent of production as the amount of that net product at the normal selling value of the product," *i.e.* as $p \cdot \delta x$ (pp. 849–50). His practice of speaking thus is liable to mislead, has indeed misled, careless readers into supposing that he *defines* the marginal net product of an agent by the expression just quoted. This he most emphatically and explicitly does not: he merely treats this expression as equivalent to his definition in the particular and, as he would say, "normal," case which he selected as his standard illustration of the general law.

[1] *Zeitschrift für Nationalökonomie*, Band III, Heft 1, September 1931.

[2] This will be a positive or negative quantity according as an increase in demand raises or lowers the price or wage per unit at which it can be obtained, but for our present purpose the latter possibility may be ignored.

[3] For reasons analogous to those given above, this must, in the case of market imperfection, be taken to mean available in the market which serves our employer.

[4] We may say, if we like, that in cases (*c*) and (*d*) the "elasticity of supply" of the labour to our employer is very large.

[5] This condition does not secure that all the units of the labour are paid a wage equal to the value of the marginal net product, but only that the marginal unit—that with the highest supply price in relation to its efficiency—is.

[6] But not in a theoretical discussion where generality is aimed at: for then account must be taken of the other combinations of circumstances alluded to.

which the general condition for equilibrium, "an employer's marginal outlay on an agent equals his marginal revenue from it," reduces to "the price of an agent equals the value of its marginal net product, as defined by Professor Pigou and Mr. Hicks," are that the agent should be hired and its product sold under conditions of simple competition in a perfect market, *i.e.* that the conditions indicated above under (*b*) (ii) and (*e*) should hold.[1] Though Mr. Hicks quite explicitly confines the doctrine to "competitive equilibrium" in a "free market," he nowhere defines these terms nor therefore brings out fully the character and significance of the limitation. He could have made the "extremely abstract assumptions," on which alone the doctrine is rigorously true, clearer if he had started, as Marshall does, by enunciating the *general* condition for maximum profit (marginal outlay equals marginal revenue) and then proceeded to show what artificial conditions have to be introduced in order to reduce this to the familiar "marginal productivity" doctrine. Pedagogically this approach is helpful, and it would surely have led to a more thorough and satisfactory discussion of the tendency towards "exploitation."

The notion of "exploitation" is central in the modern defence of wage regulation. Mr. Hicks regards the phenomenon as being on the whole unimportant. He may well be right. But his argument (pp. 82–6) would have been more convincing had it been based on a clear analysis of the reasoning advanced on the other side. It is *certain*, for example, that a monopolist (unless the demand for his product is infinitely elastic or he can discriminate in his charges with a very high degree of nicety) will to some extent exploit his labour (and every other hired factor) in the sense of paying it less than the value of its marginal net product as defined by Mr. Hicks:[2] for his "marginal revenue" from it (which constitutes his demand price for it and to which he equates his marginal outlay upon it) must be less than the value of the last increment which it contributes to his output, since in his case a small variation in his output has an appreciable effect on the price at which he sells, and the second element in

[1] If the "marginal net product" be interpreted in Marshall's sense, only the first of these two conditions is required—the agent must be hired under conditions of simple competition in a perfect market: there may be any degree of monopoly or market imperfection in the sale of the product. It should perhaps be said that the whole argument is based on the assumption that the quantities of the agents and of the product are capable of small variations and that all the relevant functions are continuous.

[2] The fact that some resources are employed to increase the value rather than the volume of output is ignored here and throughout.

"marginal revenue" is not negligible. And this holds not only in the case of monopoly but whenever there is an imperfect market or the employer supplies a substantial proportion of the total output. But, although there is "exploitation" in these cases, *it does not follow that the wage can be raised without causing a contraction of employment* [1]—a point, and an important one, against the case for wage-regulation and collective bargaining as it is often presented which Mr. Hicks does not make, though his general attitude to those policies is critical. For that to hold good the wage must be less than *the employer's demand price* for the labour (*i.e.* his "marginal revenue" from it or, in other words, the value of its marginal net product *as defined by Marshall*). Various circumstances may secure this—the most noteworthy being that which is formulated by Professor Pigou and considered by our author; viz. that a small variation in the quantity of labour hired by our employer (or a group with whom he acts in concert) appreciably affects what he (or the group) pays for the rest of his (or its) supply—as it probably will, for example, if additional supplies of the labour in question can only be obtained by the offer of higher rates and he (or the group) monopolises the market for it in the sense of employing all, or a large proportion, of the total supply. It is the prevalence of exploitation in *this* sense which advocates of wage-regulation have to establish if they are to claim that "exploitation" makes a wage-increase possible without a contraction of employment. And its prevalence is not so easy to establish in this as in the other sense. Their most promising resource would probably be to rely, as Adam Smith did 150 years ago, on the employers' open or tacit understandings not to bid against each other for labour.

Mr. Hicks's position on the whole matter seems to be that, as a rule, a monopolist's power to control the price he charges and the wage he pays is in the long run so narrowly limited by potential competition [2] that exploitation in either sense (he does not distinguish them) is unlikely to go to any considerable lengths.[3] He is probably right in claiming that monopolies are in the long run not nearly so strong as they appear to be and that the advocates of wage-regulation are apt to over-stress the

[1] For if the wage were formerly equal to the demand price for the employer's labour, *i.e.* his "marginal revenue" from it, a rise would make it greater and it would no longer be worth his while to employ so much labour.

[2] In other words, that potential competition makes the demand for his output and the supply of his labour highly elastic in the long run.

[3] Marshall seems to have taken a somewhat similar, though less extreme view (*op. cit.*, VI. xiii. 8, p. 705).

practical importance of the tendency to exploitation. But he is in danger of running to the opposite extreme. And it must be remembered in theoretical discussion that any degree of market imperfection, whether in the sale of the product or in the hiring of labour (to say nothing of open or tacit understandings such as Adam Smith envisaged), opens the door to exploitation of one type or the other in some degree.[1]

Chapter VI, on "Distribution and Economic Progress," is different in character from those which go before it. Here, and in the Appendix attached to it, Mr. Hicks breaks new ground and brings a mathematical apparatus to bear. This part of his work is therefore less suitable for the beginner but of more interest to an advanced student. In the course of it he introduces and defines mathematically a concept which is, I think, new and may well prove fruitful—the "elasticity of substitution" of a factor of production. This is a measure of the ease with which the factor in question can be substituted for the others, and is used ingeniously for combining into a formula and, in one respect, modifying the four rules laid down by Marshall as determining the elasticity of a derived demand. Even here more precision might perhaps have been expected, but the treatment is neat and further elaboration will doubtless follow. The author is to be congratulated on a very pretty contribution to pure theory.

Pure theory, however, it is, and the attempt made in the rest of the chapter to use it for interpreting and forecasting the results of economic progress in the actual world raises certain misgivings. The rigid assumptions which are made in order to simplify the analysis (*e.g.* that there are no economies arising from an increase in the quantity of resources in general at the disposal of the community) deprive the theoretical conclusions of generality; and there is no good reason for thinking that the special cases to which they apply are those most often found or most closely approached in practice—rather the contrary. Simplification of this kind is, of course, perfectly legitimate in a purely theoretical treatment and as a first approximation; but before the results are applied to the real world something more should be offered than a mere assurance that "it does not seem probable" that removal of the simplifying assumptions would cause a "very

[1] Since this notice was written Mrs. J. Robinson has published her study of *The Economics of Imperfect Competition,* in which she analyses the tendency to exploitation on lines similar to those followed here. Her treatment is more elaborate than is possible in a notice such as this, but it also presents certain differences of detail. It has therefore seemed worth while to let the above paragraphs stand.

great " " divergence " from them (p. 241)—something in the nature of a proof is surely wanted. If economics is to be taken seriously as a science, its exponents must not shrink from the difficulty of constructing an apparatus capable of dealing with the material presented to them. As regards the particular case before us, confidence in the practical conclusions reached is not enhanced by the statement on p. 121, " under the assumption of competition, it inevitably follows that an invention can only be profitably adopted if its ultimate effect is to increase the National Dividend." A more fundamental doubt is raised by the " grave weakness " frankly recognised on p. 113 : if we use the apparatus here employed in our analysis of the effects of progress, " although we are really dealing with a community in constant change, and comparing two stages of that change, we are obliged to assume that in each case the system is in equilibrium." And here the assurance that " the error from this source will generally be quite small if we are comparing two fairly long periods separated by a considerable span of time " is peculiarly unconvincing :—*prima facie*, many of the errors would seem to be cumulative through time. The technique employed in the old equilibrium economics of the nineteenth and early twentieth centuries is, no doubt, admirably suited to display the conditions which a position of equilibrium (long-period or short-period) must fulfil. It is not well adapted to describe and predict the process of growth and change. For that purpose a new technique is urgently needed.

The second part of the book, in which the author puts forward his most far-reaching conclusions and those which bear most directly on practical problems, begins (Ch. VII, pp. 136–58) with some theoretical discussion of industrial disputes which does not carry us much beyond, if indeed so far as, Professor Pigou's treatment in *Principles and Methods of Industrial Peace* and the chapter on the same subject (Part III, Ch. VI) in the *Economics of Welfare*, and is not so refined and illuminating as Dr. F. Zeuthen's recent contribution to the subject (*Problems of Monopoly*, Ch. IV). The interpretation of the " employers' concession curve " and " the trade unions' resistance curve " is hazy and it seems impossible to extract from them the conclusions which are based upon them (while the employers' power of resistance and the unions' belief about it are somehow left out of the picture).

Next follows a short sketch (Ch. VIII) of the growth of trade union power, remarkable for the claim that before the war, " even

in the immediate pre-war period," neither in steady industries nor in those where the demand for labour fluctuated greatly "was the average level of wages, even over a short period of years, probably affected to any great extent" by trade union action (p. 170). It is the next two chapters, on "Wage Regulation and Unemployment" and "Further Consequences of Wage Regulation," which contain the kernel of this Part and in a sense of the book as a whole.

They paint an extremely gloomy picture of the consequences which follow from an attempt, whether by trade unions or state regulation, to fix wages "higher than would have been paid in a competitive market" (p. 178). [Whether this means "higher than would have been paid in the absence of regulation" is not quite clear, since it has been conceded earlier (Chapter IV) that the working of competition is slow and not absolutely perfect and that full competitive equilibrium is never attained in practice (p. 86)--but apparently it does.] The unrelieved sombreness of these chapters and their wide sweep make a certain æsthetic appeal; but the reasoning is too vague, incomplete and inexact to have any considerable value scientifically. So difficult is it, for one reader at any rate, to arrive at any interpretation of the argument which is at all precise, that detailed criticism would be fruitless. It must suffice to indicate what seem to be the main sources of obscurity.

The central thesis is this: that if wage-rates generally are forced above "the competitive level" (whatever exactly that may be), unemployment will be caused in two ways: (i) by the "tendency for capital to shift from the less capitalistic to the more capitalistic trades" (and methods) (pp. 187–8), *i.e.* to "those which use a relatively large proportion of capital to labour in making a unit of product" (p. 187), from those which use a relatively small proportion: (ii) because "the total supply of capital" will be diminished (p. 193), since capital will be "lost" (p. 193), "eaten into" (p. 193), "consumed" (p. 199), "destroyed" (p. 199), "cut into" (p. 200), "dissipated" (p. 206) or "decumulated," and "savings" therefore checked (p. 193). Unfortunately "capital" is not defined and we are not told how quantities of it (or indeed of labour) are to be measured, and similarly of "saving." Presumably, these are "matters which properly belong to the theory of capital" (p. 200). But until they are cleared up it is impossible to follow Mr. Hicks's reasoning; and surely a theory of wages may not unreasonably be expected to include a precise and intelligible explanation of the processes

through which wage-rates influence employment. For instance, it is not immediately apparent why employment should be diminished in the first of the two ways above distinguished. If capital means concrete capital goods, these are themselves the product of labour, so that, it would seem, the rise in wages must cause a proportionate rise in their cost of production [1] and consequently (if there is no change in the rate of interest) in the annual charge incurred by employing them. Similarly, if "capital" be identified with "waiting," the rise in wages causes a proportionate rise in the amount of waiting involved in the creation and use of a given instrument; or again, if we take it to be in essence the employment of labour in "roundabout methods of production," the cost of roundabout methods is raised in the same proportion as the cost of direct methods, so that, given the same "time-preference" or agio on present goods as before, the relative advantages of the two would appear to be unaffected. On all the ordinary interpretations of capital there would seem to be no change in the relative advantages of more capitalistic and less capitalistic methods unless and until the rate of interest falls. And though Mr. Hicks allows for the effect of a fall in the rate of interest as a secondary influence, it is as a secondary influence only, there being, according to him, a shift over to more capitalistic methods quite independently of this. It may indeed be argued that the *immediate* effect of a rise in wages upon employment is likely (not certain) to be less unfavourable in the more capitalistic trades than in the less capitalistic, since the supply of durable capital is fixed for the time being and the charges in respect of it are "overheads" which do not enter into short-period supply-price. But on this reasoning there would be a fall in the value of durable capital goods (due to their decreased earning-power) at the same time as the cost of producing them rose, with the result that the incidence of unemployment in capital-producing trades would be particularly heavy—which is the exact opposite of the result which Mr. Hicks's theory leads him to expect from the shift to more capitalistic methods. And it seems clear, in any case, that his argument does not refer to immediate reactions of this kind, but to long-range effects.[2] The whole matter would surely have been much illuminated if Mr. Hicks had not been so

[1] In the long run, of course, and subject to the necessary correction where factors which are neither labour nor capital enter into their production.

[2] Substitution, during this transitional period, of instruments produced by highly capitalistic for those produced by less capitalistic industries may, of course, have a permanent effect on the methods employed; but this again does not seem to be the kind of influence which Mr. Hicks has in mind.

determined to avoid the "incursion into capital-theory" which, as he himself admits (pp. 200–1), is necessary for an accurate description of the processes under consideration.

Again, Mr. Hicks excludes from consideration the monetary reactions of wage-policy. He recognises that "the kind of process we have been examining would itself have reactions on the monetary machine; and these would have further repercussions on the 'real' process" (p. 212). "But," he continues, "perhaps the writer will be excused if he decides that, for the present, these repercussions lie outside the Theory of Wages" on the ground that there is no general agreement among economists about the character of the reactions. But it is not possible to separate "the real process" from "its monetary reactions" in this way when we are dealing with *all-round* changes in wage-rates—even if it be possible when we are concerned with changes in a single occupation playing a small part in the total activity of the community. For in a monetary economy it is through the monetary mechanism that the effects of such a change are brought about, and their nature cannot be discovered or understood without a clear analysis of that mechanism: the monetary reactions, in fact, are not simply "repercussions of" the process set up by the change, they *are* the process and must occupy a central position in any analysis of it. The only way to get rid of them is to postulate a barter-economy; and this Mr. Hicks does not do—his discussion hovers between what would happen in a barter-economy and what does happen in a money-economy. He seems, for example, to suppose that monetary disturbances may be neglected if the wages fixed are supposed to be "real wages" in the sense of "money wages corrected for movements in the price-level of consumption goods" by means of "cost of living sliding-scales" (pp. 211–12)—which is manifestly untrue.

Thus, the obscurity and lack of precision which mar these chapters spring, I believe, from the attempt to narrow down the theory of wages by excluding from it any discussion, first, of the nature of capital and the processes governing its supply, and, secondly, of the monetary reactions set up by changes, or disequilibria, in wage-rates.

G. F. SHOVE

Economic Scares. By EDWIN CANNAN. (London: P. S. King and Son. 1933. Pp. vii + 135. 4*s*. 6*d*.)

INTO his latest book Professor Cannan has collected four essays, the most considerable of which, entitled "Too Little Saving," has not been previously published. Of the other three

essays, "An Adverse Balance of Trade" has already appeared in pamphlet form under a slightly different title; while "Not Enough Work for All" and "Over-Population" were originally published in this JOURNAL for September 1932 and December 1931 respectively, also under slightly different titles. As appendices, forecasts of population and natality which Professor Cannan made nearly forty years ago and published at the time are reprinted.

When, not so long ago, the city editor of one's daily newspaper seemed about equally worried over the national finances and the balance of trade, one felt he might possibly be able to give better advice if he could only make up his mind which would be the first of the two to bring about "national bankruptcy," and exactly how this obscure phenomenon would show itself when it arrived. Into discussions of this order the essays in this book come like a breath of fresh air in a stuffy room. To our modern mercantilists Professor Cannan gives as little quarter as they deserve, while the "great British Economy Stunt of 1931–2" is shown up in all its garish absurdity. Few will disagree with Professor Cannan when he argues that "general unemployment is the result of a general asking too much" (p. 41); or when he refuses to believe that "great inconvenient changes of price level are as unavoidable as changes of weather" (p. 40). But when he remarks, with characteristic puckishness, "I am convinced that the present trouble is due to the reigning school of monetary experts having mixed up the rate of interest and the purchasing power of money in such confusion that they no longer know how to maintain or raise a price level," one hopes that Professor Cannan will tell us in a future book precisely what form the confusion has taken, and indicate incidentally *which* he regards as the reigning school. Or does he, as his review of Mr. Alston's book in a recent number of this JOURNAL might lead one to suppose, disagree impartially with the whole of the rest of informed opinion? Nor can one feel quite satisfied with his conclusion that if the world is too stupid to learn sense, it must at least learn to submit more gracefully to deflation. Surely here, if anywhere, lies what case there is for a measure of economic nationalism. For if a single country learns how to control its price level, is a paper standard not preferable to the neglect of that knowledge?

The third and longest essay gives an exceedingly clear account of the process of accumulation, and Professor Cannan, after discussing the sources from which the savings of to-day are

derived, makes out a strong case for believing that the accretion of capital in this country, even in the years of post-war slump, has proceeded more rapidly at least than a great many people have suggested. In his final essay, Professor Cannan compares the population outlook to-day with what it was a hundred years ago, and suggests that it is only a matter of time before what has happened in the West happens in the East also. The world as a whole now seems safe against general over-population—though, as Professor Cannan would probably agree, to lay the devil completely from a purely national point of view, it is necessary to discuss the trend of the country's barter terms of foreign trade. The forecast of population which Professor Cannan made in 1895, and which one imagines must have been received at the time with surprise, if not with incredulity, has so far been more than vindicated: he suggested that the population of England and Wales was likely to become stationary in about 1995, whereas it now seems probable that this will happen within the next twenty years or so. The comedies of the "official estimates" of those days, and of the two Government departments who refused to recognise each other's existence, are indeed amusing, and would be even more so did not official statistics still display such a melancholy lack of co-ordination. Finally, Professor Cannan reprints the forecast of natality which he made in 1901, adding the actual natality since then by way of footnote. Naturally, these figures reinforce the conclusion of his essay on over-population. Professor Cannan certainly deserves our congratulations.

HAROLD BARGER

University College,
London.

Unemployment and Inflation. By ALFRED HOARE. (P. S. King. 1933. 2d.)

IN this short pamphlet our Treasurer, Mr. Alfred Hoare, expounds once more some fundamental notions of his concerning the method by which we should deal with unemployment, which deserve more consideration than any proposal so contrary to usual ideas of what is right and respectable is likely to receive. Mr. Hoare's view is in effect that in existing circumstances it would be much wiser to unfund part of the public debt than to fund it. He would, therefore, buy up about £35,000,000 worth of long-dated public debt by means of open-market operations or by inviting tenders with the result of increasing the Bank of

England deposits by the same amount. He recommends, in addition, that there should be a substantial reduction in the rate of interest charged by the Public Works Loan Board, bringing the rate down to 2 per cent. or 2½ per cent. for various approved schemes. Here also Mr. Hoare's proposals seem to me to be of an entirely right tendency.

One sentence may be quoted which is excellently expressed:—"The whole thing bears the aspect of financial jugglery, and I think brings into clearer light the fact that the National Debt as a whole is of the nature of financial jugglery; it is in reality one of the means by which the national output is distributed amongst consumers, but has very little to do with the volume of that output."

Mr. Alfred Hoare's Bank is now, I think, the oldest Bank in the country to have maintained its unbroken individuality. Mr. Hoare has had time to discover truths still hidden from his *parvenu* brethren!

J. M. KEYNES

Increasing Return. A Study of the Relation between the Size and Efficiency of Industries, with special reference to the history of Selected British and American Industries, 1850–1910. By the late G. T. JONES; edited by COLIN CLARK, Lecturer in Statistics in the University of Cambridge. (Cambridge: University Press. 1933. Pp. xvi + 300. 18*s*. net.)

G. T. JONES died at the untimely age of twenty-six. For some three years he collected the material for this highly original work in Great Britain and the United States; for the first part he received the Adam Smith Prize at Cambridge in 1926, and for the complete thesis he was awarded the Ph.D. degree by the same University in 1928. Before his death he was planning an extension of his researches in Germany. "It is clear," he says in his Introduction, "other things being equal, that improvements in industrial efficiency, whereby the physical quantity of resources consumed in the production of a unit of a particular commodity is reduced, will increase economic welfare by enabling people to satisfy more wants with a given effort. It is my purpose in this investigation to inquire how far this economy of means towards ends progressed in certain industries during the closing decades of the nineteenth and the first decade of the twentieth century, and to what extent the changes were due to the expansion of the industries." The industries investigated were the London Building Industry, 1845–1913, the Lancashire Cotton Industry,

1845–1913, the Cleveland Pig Iron Industry, 1883–1925, the Massachusetts Cotton Industry, 1845–1920, and the American Pig Iron Industry, 1883–1925, and there are statistical appendices relating to each subject.

The Introduction of 57 pages is occupied by a discussion of the various technical economic terms which are appropriate to the purpose of the book and by an account of his method. In measuring increasing return the first step is to ascertain real costs, and "it seems reasonable to presume that the *trend* of selling prices in an established industry is closely paralleled by changes in the money costs of production with normal profit. That is to say, that the normal price of a commodity is equal to the average full expenses of producing it." "The statistical problem resolves itself into the construction of index numbers which will show the ratio between the selling prices of a given product over a period of years, their correction for changes in the money cost per efficiency unit of the factors engaged in its production, and the correlation of the index of changes in real cost thus obtained with changes in the physical volume of production in the industry and in the several firms." The method of deriving index numbers of real cost (*i.e.* "the equivalent of the average annual selling price of the product in terms of the factor-prices prevailing in the base year") from selling price data is then set out at length. Altogether five different sets of index numbers were computed for each industry, reflecting changes in the supply prices of the factors of production (labour, materials, and other expenses), changes in the price of the product, changes in the physical volume of production, changes in the outlay on the different factors of production, and changes in the average size of establishment; the last two series are given where data are available.

It is impossible here to follow the application of these principles and methods to the several industries, but the very interesting character of the results is indicated by the following quotation from the conclusions: "If my index numbers are to be trusted, it would appear that the cost in terms of resources of constructing buildings in London and of maintaining them in repair fell about 18 per cent. during the latter half of the nineteenth century, while the corresponding fall in the cost of manufacture of unbleached cotton piece goods in Lancashire was 22 per cent. During the first decade of the present century, the efficiency of the cotton industry fell 5 per cent. and that of building only 1 per cent., so that the net change in the real costs of production between 1850 and 1910 was 17 per cent. in both industries. The

available information concerning iron smelting in England does not cover so long a period, but there seems to have been no appreciable net change in the efficiency of the industry in the Cleveland district during the twenty-five years 1885–1910. At first sight these results are surprising, for the building industry nearly trebled its output between 1850 and 1910, while the cotton industry was three and a third times as great in 1910 as in 1850, and the production of pig iron on the north-east coast of England expanded from 2,500,000 tons in 1890 to 3,500,000 tons in 1910. One is reassured, however, by the results obtained for the corresponding American industries, which show far greater absolute changes in efficiency than the British industries, but about the same rates of change relative to the growth in the physical volume of production." More generally, he concludes: "The nineteenth century was characterised by a progressive diminution in the quantity of resources consumed per unit of product in British manufacturing industries. By the close of the century, however, this movement had spent its force, so that real costs remained almost constant during the first decade of the twentieth century in at least three of the basic industries of Great Britain. This change was accompanied by an adverse movement of the real rate of interchange between British and foreign goods, so that the real cost to Britain of her imports (bought largely with goods made with iron, cotton, and coal) probably increased; the contemporaneous economies effected in the 'finishing' industries being insufficient to offset the combined effect of the adverse movement of the rate of interchange and the rise in the real costs of the materials used in the 'finishing' industries. In consequence of these developments, the *per capita* real income of the United Kingdom showed no increase between 1900 and 1913, though it had increased steadily during the nineteenth century."

One hesitates to accept the last conclusion without further investigation, and Mr. Jones's methods and conclusions must be subjected, as he would have wished, to careful scrutiny. It is the more to be regretted that the man who opened such valuable new fields of inquiry should have gone from us so soon.

HENRY W. MACROSTY

The Corn Laws and Social England. By C. R. FAY. (Cambridge University Press, 1932. Pp. xii + 223. 10*s.* 6*d.*)

IT is frequently said that the early Corn Laws looked to the interests of the producer, but that after 1765 a growing tenderness for the consumer led to a reversal of aim. Malthus notwithstand-

ing, Mr. Fay urges that until 1815 there was no deviation from original policy, and that the changes of 1773 were simply an adjustment of the law to altered conditions of the market. If, however, he maintains that the Corn Laws as a whole aimed at rough justice between the two interests, he is not of those who claim that the bounty on exports was of itself beneficial to the consumer, and he rebuts with vigour the strictures that have recently been passed by more than one historian on Adam Smith's treatment of the matter. In particular, to Mr. Lipson's argument that since the bounty brought more land under the plough it must also have served to lower prices in Britain, he makes the just reply that this would be true only if production had been subject to strongly increasing returns, and adds that for this the critics have put forward no proof whatsoever.

The Act of 1815 marked a real break with tradition: "it sought to fasten on a country at peace the protection furnished by a generation of war." The story of its breakdown and that of the substitutes of 1828 and 1842 is well told. But though, in dealing with the sliding scales, Mr. Fay explains that, by delaying imports when prices were rising, they tended to defeat their own end, he fails to bring out the more fundamental point that this end of stable prices could be attained by sliding duties only granted a particular and permanent relationship between the elasticity of demand for wheat and that of supply. His main conclusion is that during the years 1815–1846, whatever fiscal arrangements had been in force, foreign grain could never have played an important part in British economy. The fact that Polish corn was warehoused in Britain and poured out of bond whenever the free import price was touched, led both reformers and agriculturists to exaggerate the magnitude of possible supplies from the Baltic. And since it was not until the 'forties that America was in a position to export on a large scale, "the repeal of 1846 removed obstructions just when their retention would have caused them for the first time in Corn-Law history to raise materially the price of English bread."

Such are Mr. Fay's verdicts on matters of controversy. But the book contains much besides. In an early chapter—which fits somewhat uncomfortably between the account of the passing of the Act of 1815 and the discussion of its results—the author reprints his valuable articles on the Miller and the Baker, the London Corn Market, the Averages, and Weights and Measures, which have appeared in this JOURNAL and elsewhere. He writes with enthusiasm of the imperial statesmanship of Huskisson,

makes an estimate of the reactions of British policy on opinions and events in Canada, traces the effects of the Corn Laws on the thought of economists, and brings out the affiliation between Henry George and the reformers of the 'forties.

Mr. Fay is too much of a social philosopher to be bound by chronological order, and there is hardly a chapter that has not reference to the recent as well as to the more remote past. Edward III and Joseph Chamberlain, Adam Smith and Philip Snowden appear side by side on single pages. This habit of leaping the years, together with a certain obliquity of allusion, may disconcert those who ask for a plain story; but readers who like to see the features of the author behind a book, and those who have time to ponder on what at first seem inconsequences, will find Mr. Fay's methods stimulating and diverting. The Preface seems to give promise of light from the past on the wheat policy of to-day, but we are left to kindle our own torches. We can dimly discern that Mr. Fay looks kindly on imperial reciprocity, but is aware of its cost; and that, while he believes in purposeful action by Government, he does not forget how often pure intention is caught in the toils of administration and twisted by vested interests to unforeseen ends. Already the Wheat Act of 1932 is offering new illustrations of processes described, but perhaps insufficiently emphasised, in these pages.

T. S Ashton

International Wage Comparisons. New York: Social Science Research Council. (Manchester University Press. Price 10*s.* 6*d.*)

Here is a wealth of material on one of those questions that are so easy to ask and so difficult to answer. How do wages in Great Britain compare with wages in Germany, France, Italy, and other countries? That is the British form of the question. But is it easy to ask? What is it precisely you want to know? Do you mean, How does the lot of the foreign worker compare with the lot of the British worker? or do you mean, What is the difference between British and foreign wages from the standpoint of the employers' power to compete in world markets? The two things are linked, but they are by no means the same. This volume has no concern with wages from the competing employer's standpoint. It has to do with what the workers of various countries get in return for their work; and that naturally comprises two main elements—what they get in money and what the money will buy. What they get in money is difficult enough

of itself. For one thing, the data in regard to wages are everywhere incomplete and nowhere comparable; for another, What is work? Are you to take account of the volume or value of the work for which the money is paid? You might try, but you will not succeed: perhaps for a specific article here and there, but not for industry generally: that can be abandoned from the outset as hopeless. Suppose, then, you confine it to payment for time. That is a little easier, but do you mean payment for an hour's work, or do you mean the income received in respect of a year's work, which will include spells of unemployment and under-employment? Better, for a start, to stick to the payment for one hour, which by a miraculous dispensation of Providence equals sixty minutes in every civilised country of the globe. But that means, of course, time rates of wages, and time rates are never quite the same thing as earnings, for there are supplementary payments, and there are piece-work and bonus systems; moreover, the official statistics of some countries are strong on earnings and weak on time rates, just as others are the reverse. In the upshot, you must take what you can get, and make the best of it. Then, having come to some sort of compromised medley of time rates and earnings, you have to find out what the several money incomes will buy in the way of working-class consumables. The prices of the staple foodstuffs are generally ascertainable, but, alas! the foods generally consumed in one country and in another vary widely. The French worker inclines to wine, coffee and veal, where the English worker fancies beer, tea and bacon! What is to be done about that? Are we to hypothecate a basic international "basket of commodities" and price the contents of that basket in all countries alike, irrespective of whether its contents are anything like what is popularly consumed in Sweden or Southern Italy? Or are we to say, No, we will take the price in each country of the particular items of food or drink favoured in that country? Beware of the latter course, have no truck with it on peril of your statistical sanity, whether in food or clothing or housing, for it leads nowhere. Then we are left with the fantasy of a universal identical basic budget. So be it; that is the only way; though it can be made a little less repugnant to common sense by the ingenious device of regional budgets invented by the International Labour Office; or perhaps by that other device propounded by a Dutch statistician for comparing country A with its most semblable neighbour B, and B with its nearest neighbour C, and so on, making a highly arbitrary and

dubious chain. By this time the statistician realises, in case it had not already bitten deep into his flesh, that he is attempting something which is by its very nature impossible either of formulation or of attainment. Then why go on? Because the question is ever being asked, and will be asked, and if the statistician does not make a shot at some sort of answer, people innocent of knowledge of statistics will tell the world, with loud confidence as the exact truth, whatever they would like to be the truth. The statisticians may be wrong in their ultimate indices, but they are triumphantly less wrong than the impassioned laymen. Rather knowledgeable ignorance than ignorant knowledge. It is easy for any accomplished statistician to snap at the heels of the Indices of International Real Wage Comparisons. It is an exciting and amusing diversion; especially for those who are never called upon, in the way of duty, to produce some sort of answer to the imperative question, How do wages in country A compare with those in country B? This is by implication a plea. . . .

Some time in 1928 the Social Science Research Council of New York resolved to direct a portion of its energy and funds to the improvement of the science and art of International Wage Comparisons. As a preliminary, it promoted the establishment of committees of statisticians in six of the principal industrial countries, each to be charged with the survey of the data for its own country. In January 1929 a conference of representatives of these committees was convened at Geneva, the International Labour Office providing facilities. Responsible officers of the International Labour Office, as well as official statisticians of one or two countries who were not formally members of their national committees, assisted at the deliberations. This conference differed in two ways from earlier conferences at the International Labour Office at which the subject of International Wage Comparisons had been explored; first, it was unofficial; and, second, it included the users as well as the compilers of wage and cost-of-living statistics. Furnished with excellent documentation provided by the I.L.O. and by the national committees, this first conference made its survey, argued usefully vexed points of policy and procedure, and reached helpful conclusions on certain practical aspects of the collection and comparison of wage data, which took shape in recommendations that the I.L.O. should extend in specified directions the range of the data it had for many years past been systematically collecting. This first conference concerned itself, not entirely

but very largely, with the wage element; leaving the cost-of-living side and the problem of combination of the two to a later conference. This second conference was convened, again at Geneva, in May 1930. It devoted itself to outlining in more detail the practical steps that might be taken to improve the materials and methods used in International Wage Comparisons. It further resolved that an effort should be made to bring together a representative group of wage and cost-of-living statistics in each country, with a view to showing what differences existed in their nature and what possibilities there were of improving uniformity. It was thought that this survey could best be carried out by one investigator acting in collaboration with representatives in the different countries. Mr. John Jewkes was invited to undertake this work; and to prepare a composite and comprehensive Report of all that had proceeded from the initiative of the Social Science Research Council of New York, including his own memorandum. This volume is the fruit, perhaps not easily edible, but certainly meaty and fortifying, of Mr. Jewkes' compilatory and creative labours.

The statistical world is under a great obligation to the Social Science Research Council, to all those who gave their energies to the work, and in a very particular degree to Mr. Henry Clay, to Mr. J. W. Nixon of the I.L.O., and to Mr. John Jewkes. Here, within the compass of one reasonably manageable volume, is an introduction by Mr. Clay; the resolutions and recommendations of the Conferences; the national reports on wages and hours of labour in respect of Canada, France, Germany, Italy, the United Kingdom, and the United States; memoranda prepared by Mr. Nixon and his department and presented by the I.L.O. for the information of the conferences; and a Report on the existing wage and cost-of-living statistics in each of the countries represented, prepared by Mr. Jewkes.

And what does it all boil down to? A question not to be asked. A survey and a compendium of this kind do not boil down to anything that can be ticked off in a happy phrase. The making of International Real Wage Comparisons is a matter of combining fidelity to philosophic and statistical principle, with unremittingly patient industry in searching out the sources of data, securing their regular supply, knowing all there is to be known of their virtues and failings, and combining the uncombinable in the manner that best satisfies common sense. The conferences convened by the Social Science Research Council did not discover any new principle. That was not to be expected,

for years of study, questioning and exploration had already been given to the basic problem. What remained was to extend the range of the data and to improve point by point the detail of the work. To that excellent purpose the Social Science Research Council has made a notable contribution. And anyone who feels himself to be in any danger of being asked to supply, at a few hours' notice, an answer to the question, How do the wages in this country compare with the wages in that? had better have this volume on his shelves. It may not enable him to plump down a ready answer, but it will help him to give something better than a wild guess, and it will certainly help him to explain why the question is not as simple as it looks.

JOHN HILTON

Soviet Economics. Ed. by DR. GERHARD DOBBERT, Trans. from German by MALCOLM CAMPBELL. (Bodley Head. 1933. Pp. 343. 8*s*. 6*d*.)

IN collecting the material for this book the purpose of the editor has been to provide " a symposium which would enable a wide circle of readers to obtain as comprehensive and as objective information as possible about Soviet economics and so to form their own independent judgment on the matter." In its final form the book is proof of the fact that where two opposed political, economic and social systems exist, an " objective " survey of the territory of the one from the psychological territory of the other is an impossibility, and those who can stand in a No Man's Land between the two are uncommonly rare specimens of humanity.

Only in this way can be explained the constant references to " Stalin " and his " clique " which pervade the book, although quite irrelevant from the point of view of the student of economics; the cynicism of some of the writers; and the lack of a sense of historical perspective which pervades most of the contributions. Only in one essay, out of a collection of thirteen, is anything like adequate stress given to the conditions prevailing under the Tsarist régime. It is clearly shown in this essay, which deals with housing, that conditions which at first sight may appear appalling from the Western middle-class standpoint are, in fact, at the same time illustrative of rapid progress. If only all the writers had made their historical comparisons clear, much unnecessary passing of purely subjective judgments would have been avoided.

Before considering the essays in detail it should be said that the editing of this volume has not succeeded in producing at all an illuminating symposium. No contribution to clarity is made by

publishing diametrically opposed views, when neither writer shows convincing evidence to back his case. But such cases frequently crop up in this book, and the editor, instead of having cleared up the matters of disagreement before publication, or even in an editorial note, leaves them to confuse the reader. Thus, while one writer completely discredits Soviet statistics early on in the book, another uses them, with the cynical reference to the fact that they are "official," and yet another uses them without any qualification at all. At least one essay seriously attempting to estimate the value of the statistics should have been the basis for the book, and all the writers should have based their use of figures on the conclusions of this study. As things stand, one writer is discredited by another, but no overwhelming evidence is adduced by anyone.

There are certain linguistic eccentricities which are likely to disturb the English reader. Such words as "organisatorial" for "organisational," "agitatorial" for "agitational," and reference to the "stable industries" when "staple industries" is what is presumably meant, these are irritating faults in a book already of very uneven quality. Again, the Russian "GUBERNIA" is translated into the French "gouvernement," for no apparent reason except that the translator did not like the conventional English method of writing "GUBERNIA" in italics or translating it literally into "government."

Three essays in this volume stand out for clarity and their academic treatment of the subject. "Planned Economy," by W. H. Chamberlin, for a long time one of the most objective of the foreign correspondents in Moscow, gives quite a comprehensive account of planned economy, outlining both its aims and achievements. On the other hand, the suggestion that "the economic life of the individual" has suffered more regulation than would "be accepted in most other countries," shows an ignorance of the extent to which the working man's life is regulated in every country in the world. This lack of perspective is visible in the work of all non-working-class correspondents, and always distorts the real emphasis of the various factors of Soviet life.

"State Finance," by Dr. Dobbert, is a very able survey of the system of socialist finance, and brings out the essential differences of principle between socialist and capitalist state finance. Thus, under socialism "it is merely a question of technical practicability whether it collects its resources from the earnings of the State industries by taxing them or by compelling them to loan money to the State. Likewise, in principle, it is all the same in what way

it takes purchasing power away from the populace, whether by direct action in the form of a tax imposition or indirectly in the form of a regulation of the prices of the collectivised production." It should be noted, however, that Dr. Dobbert misses the point that under socialism the withdrawal of purchasing power through prices is, in fact, more direct than through taxation, since it is naturally carried out in the necessary State trading process, while taxation requires a special tax-collecting apparatus. If only each essay had attempted to establish a few basic principles in this way, however simply, the book would have been of far greater value than it is.

The essay on " Building and Housing," by Hans Schmidt, a Swiss architect working in the U.S.S.R., is valuable because of the light it throws on the perspective in which it is essential to view Soviet phenomena. The inherited primitiveness of the U.S.S.R. is given due emphasis, and this throws due light on the progress which has been made. But this progress, compared with Germany and Austria, where raw materials already existed, is not large. Such a satisfactory treatment is refreshing after Dr. Saller's contribution on " Transportation," which throws out the following statements :—" The cost of running the railroads in Russia is tremendous and not on a profitable basis." The question of what IS a profitable basis under socialism, one of the most fundamental questions of socialist economics, is never faced throughout the book. " The number of accidents that occur is enormous. The number has been increasing in an appalling fashion. In the year 1929–30 it was about eleven times the corresponding figure for German railroads." But we are not told how it compares with previous years in Russia, nor its relation to the increase in traffic, which are the relevant comparisons to be made. Dr. Saller in other places is equally weak in his comparisons, and thus in many of his conclusions.

The contributions on " Industry " and " Agriculture," by Nikolaus Basseches and Professor Otto Aulgagen respectively, are far too general in subject-matter to be satisfactory. The former contains some amazingly contradictory statements, including a completely false summary of the second Five-Year Plan, to the effect that it " aims at a final objective which with regard to the production figures is scarcely in excess of that aimed at in the first Five-Year Plan." As a matter of fact, the second plan aims at a minimum increase in production to twice or three times its existing level, with far greater increases in many branches of industry. The contribution dealing with agriculture is not

economic but political. No statement is made of the economic conditions which led to the necessity for collectivisation: the decline in the size of holdings due to primitive forms of land distribution and the increase in population, together with the fact that the only way in which a socialist State could help agriculture was by means of technical and mechanical assistance which could not be applied on a small scale. Further, we get no idea of the working of the new collective units of production, and the assumption underlying most of the essay, that the "Commune" is the chief form immediately envisaged for the collective agricultural unit, is inaccurate.

"Money, Credit and Banking," by Malcolm Campbell, and "Organisation of Economic Life," by Hans Jonas, give a partly historical and partly contemporary survey of Soviet tendencies, with an undercurrent of semi-political criticism. "Captains of Soviet Industry," by Professor Pöpplemann, is a nice little chat about prominent individuals that has no place in a serious economic study, and H. R. Knickerbocker's "Foreign Trade" wastes a great deal of space in exploring a comparison of the Soviet Union with Peru under the Incas. Mr. Knickerbocker makes the grave error of treating the Foreign Trade Monopoly of the U.S.S.R. as a purely incidental part of socialist organisation, based on certain particular factors in the situation. In fact, it is a fundamental part of any socialist system, and should be considered as such. Only in this way can it be adequately considered, on the basis of barter, and only then can an understanding be attained of Soviet foreign trade and price-fixing policy.

In addition to the contributions already discussed there are a number of polemics of little value from the standpoint of the serious economist. Arthur W. Just, dealing with "Economic News Reporting and the Economic Press," first concludes that "no Bolshevik news whatever can be regarded as having objective value," and finally concludes that "from the point of view of news gathering the conduct of economic affairs in the Soviet Union has ceased to be a closed book. The actual position can be envisaged in its broad outlines, and any failure of expert opinion to agree in its predictions is attributable solely to differences in political outlook." Since the available material is all "Bolshevik news," as the writer has been at pains to show, these statements appear to be not a little contradictory. But how appropriate would the second quotation have been as a preface to the whole symposium!

Dr. Wilhelm Roelinghoff in "Internal Trade" starts off by

stating that the foreign trade of the U.S.S.R. is primarily "to convince the rest of the world that their State factories have outstripped the private factories of Europe and America." This statement, completely unsubstantiated, is in striking contrast with H. R. Knickerbocker's view that Soviet trade has always been based on economic and not political interests. "Social Problems," by Pietro Sessa, is an agglomeration of every odd and end of information that the author happened to select, and "Foreign Technical Assistance," by Georg Cleinow, attempts to interpret the employment of foreign technical assistance in a political way, thus entirely distorting its economic significance.

It is amazing to-day what material can reach the public under the vague heading of "Economics." It is probably considerably exceeded by the amount of rubbish which reaches publication on the ground that it deals with the U.S.S.R. *Soviet Economics* is therefore a perfect field-day for the woolly-minded, and Dr. Dobbert has not excluded woolliness from his symposium. The very selection of subjects has, in fact, invited it, since such vague topics as "Industry," "Organisation of Economic Life" and "Captains of Industry," treated by different writers, are bound to overlap or to be subject to omissions which a more scientific study could have eliminated. For example, not a single writer in this book of Soviet economics has dealt with labour organisation, the fundamental basis of Soviet economics. In "Social Problems" the matter is touched on up to a point, but only as a departure from what are generally considered to come under the heading of "Social Problems" in this country.

The principles of socialist economics are yet to be explored. And they can only be expounded as a result of experience of socialist economic life. Adam Smith only laid the foundations of capitalist economic theory as a result of living in a growing capitalist economic system. The field of inquiry opened up by socialist economics requires entirely different assumptions on the part of the inquirer from those which he has inherited under capitalism. Academic economists are still too occupied with capitalist crisis to turn their attention to socialism; and Soviet economists are far too occupied in practical activity in the U.S.S.R. to develop abstract theories. Such matters as finance and currency control, price-fixing and wage-fixing, fixing the rate of profit, and the abolition of taxation are being discussed in the practice of everyday economic life in the U.S.S.R. to-day; only with experience will a new set of operating principles become clear.

P. A. SLOAN

Credit Policies of the Federal Reserve System. By C. O. HARDY. (The Brookings Institution, Washington, D.C. 1932. Pp. xvi + 374.)

The Federal Reserve System and the Control of Credit. By W. E. SPAHR, Ph.D. (New York: The Macmillan Company. 1931. Pp. xx + 138. 7*s.* 6*d.*)

MR. HARDY has produced a valuable book. He is partly engaged in retelling the old story, but he uses that story to test theories old and new. His treatment is always fresh and interesting; and his judgment is well-balanced and independent. There is no dead wood or padding. In analysing the various aspects of Federal Reserve policy, the problems he presents are real and important. He seems determined to take nothing on trust. He shuns panaceas and general doctrines. On the whole his attitude is sceptical. Yet just when he seems to have shown that credit policy is not likely to succeed outside a limited range of technical problems, his spirit floats up again on a wave of renewed hope and he urges further effort. The following sentence, which relates to the control of the business cycle, fairly indicates his attitude to Federal Reserve policy in general. "The economist can only say that further experimentation is probably worth while, but that the experience of the past does not create optimism."

It would not be true to say that Mr. Hardy is not lucid. His language expresses what he sees with complete clarity. And some things he sees very clearly. His vision is not obfuscated by the mists with which authority and tradition surround the practices they sanction. For instance, no activity of the Federal Reserve Banks is more sacrosanct than their unremitting support of the Acceptance market. While recognising that the acceptance has some field of genuine usefulness, of the purpose for which it was primarily encouraged—that of making a fluid market for the inter-district movement of short-term funds—he writes: "It was not needed for that purpose and has not served that purpose."

It is in ultimate synthesis that Mr. Hardy does not achieve perfect lucidity. For example, in a number of places he indicates a preference for rediscounting as a method of credit provision compared with open-market operations. He thinks that the Federal Reserve Banks should have encouraged rediscounting more, and speaks of the "unfortunate tradition" against borrowing. To many the magnitude of rediscounting has appeared to be a source of weakness in the system; it takes the edge off the control which the Federal Reserve Banks can exert over monetary

conditions. When expansion is the order of the day, member banks can pay off their indebtedness; when contraction is the order, they can run further into debt. How much more powerful is the control of the Bank of England, dealing as it does with a market which cannot bear to be in debt for more than a few days? (Mr. Hardy is surely wrong in asserting (p. 32) that in these circumstances the discount rate counts for nothing.) For what prize is Mr. Hardy prepared to relinquish the greater control which a high proportion of open-market holdings to rediscounts undoubtedly gives?

This never becomes really clear. In a number of places he toys with the idea that discriminative treatment of member banks, designed to control the nature of their lending operations, would be of advantage. The reader may well be led to hope that the value of such discrimination will ultimately be explained, and to suppose that the high level of rediscounts is desired as a weapon for carrying out the discrimination. He is destined to disappointment. In the last Part Mr. Hardy lays down that the quantity of credit is a more important concern than quality. (Quantity can assuredly be governed most easily if rediscounts are low.) Nor will Mr. Hardy even allow the plain man's belief to stand, that it is better that the member banks should lend as much as possible on self-liquidating paper and as little as possible against collateral security. "My predilections are strongly against the protection of the established way of doing this [self-liquidating loans] in the face of the competition of newer ways. . . ." The small borrower should be protected (but his "disadvantage is just as great if the banks stick closely to self-liquidating paper") "as a matter of social policy," but this must not be "camouflaged as an issue of 'sound' against 'unsound' banking." Nor does he advocate control of stock market operations. Why then this enthusiasm for a high level of rediscounting?

He has, it is true, one point to make against an extension of banking investments and security loans. He holds that it leads to an increase of savings-deposits. Those who would have held the securities carried directly or indirectly by the banks, maintain idle deposits for lack of better employment for their funds. Yet it does not follow that the Federal Reserve Banks could, by pressure on members wishing to rediscount, get them to extend a greater volume of credit for commercial purposes. If the member banks were debarred from extending investments and security loans, the additional credit just would

not come into existence. An effort to regulate quality in this direction would have an injurious effect on quantity. The hope of those who lay stress on quantity is that the idle funds will ultimately stimulate business by seeking employment. Mr. Hardy offers no alternative means of providing a stimulant.

In his central section (Part II) Mr. Hardy is highly sceptical of the possibility of price control and cycle control. He has some very interesting arguments on the inadequacy of each possible index-number of prices. But in the concluding section (Part IV) he accepts somewhat uncritically the theory of "neutral money." He holds that the objective should be a fall of prices in proportion to rising productivity rather than stable prices. He does not consider that the choice between these should be affected by the degree to which factors of production are effectively exerting pressure to secure a rise in their level of money rewards. He is to be praised, however, for pointing out that even the doctrine of neutral money may entail an expansion of credit in times of depression. "It is a neutral rather than an inflationary policy for central banks to expand credit enough to offset the withdrawal from active circulation of funds which are tied up in the expanded 'savings' deposits. The difficulty is . . . that the new supply does not necessarily replace what has been withdrawn from active use; it may simply augment the inactive hoards of cash and bank balances."

Two of the most notable chapters are those which analyse the Federal Reserve policy of 1928–29 in combatting the stock market boom. The only point of importance omitted in the narrative is that the industrial recession began some months before the stock market crash. Mr. Hardy reaches the conclusion that the Federal Reserve System should have adhered to its previous plan of taking cognisance only of commodity production, prices and inventories, and should have allowed the inflation of stock prices to rip. He is not convinced that either the rate policy or the moral pressure policy was proved inadequate to break the boom, since neither was given a completely fair trial. But the whole policy of attempting to break the boom was in his judgment misconceived. He hardly does justice to the opposite point of view. A severe break in stock prices is bound to react unfavourably on the demand for consumable goods. Is not the system, then, justified in looking ahead to avert a situation which will react seriously on its primary task of maintaining sound business conditions? One cannot feel that Mr. Hardy has said the last word on this.

Apart from the fight with the stock market, Mr. Hardy acquits the Federal Reserve Banks of serious error in the period before 1929. They did not expand as much as they should have done from one point of view, and they expanded more than they should have from another. Human reason and economic science are not yet adequate to determine action precisely. They can only lay down margins outside which it would be unreasonable to go, and the Federal Reserve policy kept within these margins. It is difficult not to agree with Mr. Hardy in this sensible conclusion. He has one criticism, however, which he states in two places, namely, that the system should have paid greater attention than it did to gold movements after 1925. But he does not adduce any cogent reasons for this view.

And what of the period after 1929? Mr. Hardy seems to take all that followed as a decree of fate. At least he ceases to apply his critical apparatus to it. May it not be maintained that the great and tragic error was the inertia displayed by the system in the face of the gathering depression in 1930? The immediate aftermath of the crash was well handled. Credit was pumped in; liquidation was kept within reasonable limits. The Banks rested content with this success. They did not attempt more drastic action. What of commodity prices, of inventories, of production during 1930? The recession was far greater than those of 1924 and 1927. Did it not call for reverse operations of proportional magnitude? Yet these were not adopted. The system seemed spellbound in the face of disasters. And so does Mr. Hardy. At least he ventures no comment.

These are but a few of Mr. Hardy's topics. The book is replete with fascinating discussions; adequate comment would require as long a volume.

Dr. Spahr's *The Federal Reserve System and the Control of Credit* is by contrast a delightfully simple-minded little book. He holds it to be important that the public should understand the issues involved in central banking policy, and he tries to explain those issues in easy terms. The Federal Reserve System has been praised by foreign economists for the amount of publicity it vouchsafes; Dr. Spahr would have even more. Let the Board issue full, frank and frequent statements of its motives and, where motives conflict, lay bare the conflict for public inspection and discussion.

Dr. Spahr's treatment of price stabilisation is illuminating. He accepts this principle as fundamental and perhaps overstates the extent to which it has been generally accepted by banking

authorities. But there is an important limitation. If reserves are large and growing, stabilisation should be sought and inflation eschewed; but if there is a tendency towards a loss of gold, the need for security has priority and credit must be restricted. What could be simpler! Perhaps this easy common-sense view reveals more than we can glean by the application of the most complicated analytical and statistical technique. What happens when the result is generalised? Countries receiving gold are not to inflate, but those losing it are to deflate. This seems to be very much what happens. No wonder that we have world deflation and maldistribution of gold.

There does not appear to be much connection between the book and the polemic against spending in Mr. Simonds' covering introduction.

R. F. Harrod

The Bank for International Settlements at Work. By E. L. Dulles, Ph.D. (New York: The Macmillan Company. 1932. Pp. 631. 25*s.*)

Dr. Dulles in her very thorough and painstaking book on the Bank for International Settlements has brought together a mass of material with regard to its formation and development. It contains indeed so much material that it is impossible to make any attempt to summarise its contents; all that a reviewer can do is to give a general survey of the characteristics of the book as a whole.

As far as the collating of facts is concerned there is little that is open to criticism. The weakness of the book lies rather in its lack of any special emphasis on salient points. There is so little stressing of any one feature more than another that no clear-cut picture emerges from the wealth of detail. Dr. Dulles is also curiously reluctant to express opinions on controversial questions or even sometimes to expound the opinions of others. Thus (p. 121), she refers to the fact that some authorities wished to see the Bank extend credit for the benefit of commerce, whilst others considered it should limit its activities to the more definitely monetary field, but there is no consideration of the pros and cons of the two points of view on this very crucial question, merely a statement that "there was no complete solution of the problem." Such omissions, of which other examples could be quoted, make it difficult to build up any vivid image of the Bank as a living organism, or to appraise rightly its value to the world economy. When Dr. Dulles does venture on a tentative conclusion of her

own on arguable points she is somewhat apt to state that conclusion without the arguments or facts on which it is based. For example, referring to the events of 1931, "it is true," she writes (p. 194), "that it (*i.e.* the B.I.S.) had not sufficient resources to stimulate inflation even in the smaller countries. Nevertheless, it is conceivable that during the early part of 1931 it could have made some efforts to act as intermediary or to develop a programme to halt deflation. This it did not do." There is here no discussion of how far or by what means the Bank could have helped to stem deflation, merely the naked announcement of the possibility. Perhaps the author would contend that discussions of what might be are out of place in a chronicle of fact, but as a result the book is far less stimulating to thought than it might otherwise be. On the other hand, there is so much information here that is not readily accessible elsewhere that anyone wishing to study some aspect of the activities of the B.I.S. will find this book an essential part of his outfit.

W. A. Elkin

Monetary Policy and the Depression. A first report on International Monetary Problems by a group of the Royal Institute of International Affairs. Oxford University Press. (London: Humphrey Milford. 1933. Pp. xii + 128. 7*s.* 6*d.*)

Chatham House has produced another useful volume on monetary problems. It appears under the auspices of a committee of distinguished men. Unlike the last volume, it takes the form of a continuous report, in which individual views have been sorted out and synthesised. It is written in language which should be intelligible both to academic experts and to men of affairs. It is supplemented by a chronology of the world crisis and a compendium of exchange restrictions in various countries.

Beginning with a brief description of recent economic developments and of the characteristic phenomena of a depression, it proceeds to set out certain types of view that are held by intelligent people about remedial measures national and international. The limits within which there is general agreement are recorded; in the field of controversy the committee does not attempt to reach a final view of its own. More is promised in a subsequent volume.

In a chapter entitled "Measures against Depression: the Theoretical Setting," three views are expounded, the monetary view, the structural view, and a middle view. The section on the monetary view is plain sailing. It is not easy to extract much

from the section on the structural view. This is perhaps because the draftsman, of whose ability the report bears striking evidence throughout, was endeavouring to summarise opinions, which have not themselves reached a sufficient degree of coherence or intelligibility to admit of summary. It must not be inferred that the monetary view can claim sole possession of the field. Views as to the causes of depression in general, and this depression in particular, are too multifarious to be surveyed comprehensively in this volume. It is probable that the "structural view" was chosen because its exponents would be more inclined than those of other views to challenge the recipes put forward by the monetary school.

This clearly written and workmanlike survey is refreshing reading and whets our appetite for more.

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R. F. HARROD

Le Controle du Crédit à Court Terme par la Banque d'Angleterre. By CHARLES HÉRISSON. (Paris: Librairie du Recueil Sirey. 1932. Pp. 462.)

CENTRAL banks are constantly faced with the problem of securing the best compromise between internal and external stability of money, and the result largely depends upon the extent of international monetary co-operation. The control of money values and of credit is an important instrument of national economic conservation and there is danger that it may become the chief weapon in international competition. How this may be avoided is now a question of political and economic statesmanship, and research into the objects and methods of the central banks of various countries is valuable in removing misunderstandings and in facilitating co-operation.

Dr. Hérisson's book is specially useful in interpreting to French readers the Bank of England's short-term credit policy. British students will be mainly interested in the opinions of a French economist about this policy and in the comparisons drawn with that of the Bank of France and of the United States Federal Reserve System. The information given in the account of the Bank of England's policy is well known to British students of monetary problems, the data being drawn from the Macmillan Report and from the works of recognised authorities.

The book is, however, not merely a review of the Bank of England's policy. It deals more generally with the objects and

methods of central bank control of short-term credit in relation to the gold standard, illustrated by the Bank of England's policy in recent years. Dr. Hérrisson indeed states his object to be an examination of the problems, difficulties and limits of credit control for the purpose of increasing the stability of economic life, and he considers that the Bank of England has more power of credit control and has intervened more actively than any other central bank.

The first part of the book is mainly descriptive of the British banking system and money market. Part II is a clear and logical review of methods of controlling the supply of and demand for short-term credit. It includes a discussion of the problem of qualitative control and an account of methods of co-operation between the Bank of England and the joint stock banks, the money market, the Treasury, and the central banks of other countries.

Dr. Hérisson deals mainly with the situation before the British suspension of the gold standard. He is of the opinion that in view of the enormous short-term obligations abroad the resources of the Bank of England especially in recent years have been too small, that the elasticity in the note issue allowed by Section VIII of the Currency and Bank Notes Act of 1928 is inadequate, and that in consequence a small foreign drain reacts very unfavourably on the internal credit situation. In expressing this opinion insufficient allowance is made for the abnormal conditions of recent years, with exceptional difficulties in utilising short and long-term assets frozen abroad; a reserve adequate in most circumstances would be insufficient in a period of "economic blizzard." Many will, however, agree with the opinion, which he accepts, that it has been a disadvantage to have a large part of the gold reserve immobilised because of the system of gold cover for the note issue. But he admits that the British difficulties would have been increased if the Bank of England had been bound by the proportionate system in force in France and other countries, and he favours the abandonment of any fixed relation between the gold reserve and note issue.

There is an interesting and well-documented discussion of open-market operations for controlling credit supply, increasing the effectiveness of the Bank Rate, avoiding changes in the Bank Rate, and neutralising import or export of gold. Dr. Hérisson considers that the Bank of England has shown great judgment in its use of open-market operations for securing stability of credit conditions. He compares this with the United States Federal

Reserve System, which a few years ago by open-market purchases provided more funds than industry and trade could utilise, thus contributing to excessive stock exchange speculation, and with the Bank of France, which regards open-market operations as an undesirable interference with the money market. Dr. Hérisson considers that British experience shows open-market operations to be a valuable supplement to variations of the official rate for counteracting inflation or deflation.

Control of the demand for credit is much less effective than control of supply, whether in England or in other countries. In Dr. Hérisson's view it is more difficult to stimulate expansion of credit than to check over-expansion, but he does not discuss the argument that if expansion were effectively controlled, depression would be less serious. He expresses the opinion that it is largely by under-estimating the difficulties of regulating the volume of active credit, especially in times of depression, that advocates of managed money have exaggerated the powers of the banks to control the rhythm of economic activity.

In discussing the question of co-operation between the Bank of England and the joint stock banks the author tends to over-emphasise the effects of absence of systematic consultation about monetary policy, though he admits that the joint stock banks generally avoid action which would embarrass the Bank of England. He advocates that the Bank of England should publish an annual report and should take the public into its confidence by making statements on the broad lines of its policy, with a view to securing the co-operation of the business community. However, while not wishing to support the "mystery" worship of high monetary policy, it may be doubted whether such statements would add much to what leaders in the business community are able to infer directly from the course of events.

In outlining the chief features of the spasmodic co-operation between the central banks of different countries Dr. Hérisson claims that Great Britain has been one of the chief beneficiaries. On the question of the accumulation of gold by France during recent years he argues that this was not the result of any deliberate policy by the Bank of France. He agrees that in preserving a passive attitude the Bank of France failed to offer constructive co-operation, and admits that the small volume of foreign lending by France and the organisation and methods of the French money market may be open to criticism. He, however, denies the charge sometimes made that the Bank of France has pursued policies hostile to British monetary interests in order to put pressure on

Great Britain to support France in international politics, but agrees that the extent of co-operation between central banks is largely conditioned by the state of political relations between the countries concerned.

In an interesting discussion about the objects of the Bank of England's policy Dr. Hérisson considers that in recent years the Bank has seemed to hesitate between the pre-war purpose of preserving exchange parity and the new ideas of monetary management. Force of circumstances, he thinks, rather than deliberate purpose has resulted in deviation from the traditional objective. Since 1925 the Bank has endeavoured to maintain stable credit conditions and a low Bank Rate, as desired by industry and trade, the money market, and the Treasury, and gold movements have been a less important index than in pre-war days. Dr. Hérisson is satisfied that during the difficulties of 1929–31 the Bank endeavoured to retain the gold standard, but showed more solicitude for the needs of industry than for maintaining exchange parity. Against this contention, however, it may be argued that, taking a long view, the best way of protecting the exchanges is to strengthen the position of industry. On the whole, he considers that for five or six years after the return to the gold standard in 1925 the Bank had well performed its task of reconciling stability of the exchanges with meeting the needs of industry and of the money market, though it had not ventured on the road advocated by many monetary reformers of maintaining stability of commodity prices.

Dr. Hérisson considers that the Bank Rate was kept too low during the summer of 1931, at $2\frac{1}{2}$ per cent. until July 22nd and only $4\frac{1}{2}$ per cent. when the gold standard was suspended. He would have raised the rate to 6 or even 9 per cent. "Great Britain was forced to suspend the gold standard largely because of the desire to adhere too rigidly to a policy of unduly easy credit. The rigid and blind adherence to any one monetary policy is unsatisfactory. There should be elasticity and a willingness to depart on occasion from principles which are appropriate enough in normal times." But it is very doubtful whether in the circumstances of 1931 the raising of the Bank Rate to a much higher level would have been effective in stopping the foreign drain. Indeed in an earlier part of his book Dr. Hérisson envisages conditions under which the raising of the Bank Rate might be powerless to prevent the withdrawal of short-term balances if they were urgently needed abroad or if psychological conditions were strained by extreme lack of confidence.

In a concluding section Dr. Hérisson refers to the abandonment of non-intervention by the Bank of England as a most important innovation, which contrasts sharply with the policy of the Bank of France. A summary is given of conditions which would permit of the most effective control of credit. The book is completed by a useful bibliography, and appendices giving British banking statistics.

J. HENRY RICHARDSON

International Trade. By BARRETT WHALE. (Home University Library, 1932. Pp. 254. 2*s.* 6*d.* net.)

THIS book offers a gate to a wide field of interest, theoretical and practical. A brief but adequate account of the manner in which payments are made across national frontiers is followed by a discussion of the transactions out of which these arise. The Balance of Payments theory of the foreign exchanges, as usually expressed, is shown to be either meaningless or inadequate according as changes in short-term indebtedness are, or are not, included in the Balance; but, re-stated so as to bring it into line with the general theory of value, it is made the starting-point from which the theory of normal equilibrium is approached. Unlike many writers, Dr. Whale never allows the reader to imagine that the value of a free currency is determined by a set of forces separate from those operating on the value of a gold-standard currency; and the doctrine of purchasing power parity is interpreted broadly so as to cover not only the adjustment of exchange rates to given price-levels, but also that of prices to given rates of exchange. The chief propositions in the argument have already been laid down in the writings of Cassel, Taussig, and Viner; but it is not too much to say that nowhere have they been presented with such clarity or such economy of words as in these pages.

In treating of the effects of movements of the exchanges Dr. Whale urges that, generally, a considerable degree of elasticity in the demand for foreign products may be postulated and that, therefore, a *gradual* fall in the rate of exchange may be expected to restore equilibrium in the balance of payments. But he suggests that a *sudden* drop in the exchange rates may fail to evoke an immediate response in increased exports or decreased imports, and that the fall may thus become continuous. He might have reinforced his argument by adding that if the sudden fall gives rise to the expectation of a further fall, its

effect may be to stimulate movements of trade and capital in a direction hostile to a return to equilibrium, in which case the fall will be self-inflammatory. The difficult problem of one-sided transfers is dealt with in an illuminating manner. Following Professor Ohlin, Mr. Whale distinguishes the primary change in income resulting from the financial transaction from the secondary change which must take place if this transfer of income is not reflected in an equal change in the balance of trade. But, while he emphasises the probability of a further monetary adjustment, it is to be regretted that he did not spare a few pages to discuss (on the lines of Professor Angell or Miss Kock, for example) the mechanism by which the changes in money income may be effected. It is to be regretted, not only because there are still obscurities to be dispersed, but also because most of the readers of a volume in this series will not be professional economists, and the plain man is apt to remain unconvinced, even in face of a logic so firm as Mr. Whale's, if the reason *why* a thing must happen is not supported by an explanation of *how* it must, or may, come about.

A searching criticism of the Ricardian theory of international trade leads to a rejection of the doctrine of comparative costs, but leaves comparative values still in the field. Mr. Whale contends that it is sufficient to say that goods will be produced where the necessary factors are least scarce—a principle the acceptance of which, he shows, destroys the fear that specialisation in " decreasing return " industries may be disadvantageous to the nation concerned.

The second half of the volume is occupied with problems of tariffs and commercial treaties. It contains penetrating observations on the relative merits of the conditional and unconditional forms of the Most-Favoured-Nation clause; and a distinction between " aggressive " and " conciliatory " tariff bargains forms a useful addition to terminology. Mr. Whale debates the problem of the relation between economic progress and the volume of foreign trade, and concludes that, since the movement of commodities may be regarded as an alternative to the movement of factors of production, recent restrictions on the migration of labour and capital make it more vital than ever that trade should be free to expand. The book as a whole is the product of an acute mind and a mature judgment: it is at once an able summary of the best recent thought on international trade and an original contribution to that thought.

T. S. Ashton

The Industrial Discipline and the Governmental Arts. By REXFORD G. TUGWELL, Professor of Economics, Columbia University. (Columbia University Press, 1933. Pp. 241.)

A PHILOSOPHICAL work on government and economics, written by a distinguished economist, is interesting in itself. But it takes on special interest when the economist is also Assistant Secretary of Agriculture in the United States Government and a member of the so-called "brain trust," that little group of college professors which is so vitally influential in the Roosevelt Administration.

The book was largely, if not entirely, written before its author took public office, and can in no way be taken as an official pronouncement from Washington. However, Professor Tugwell is high in Government counsels, his influence is far-reaching, and his advice is certain to be respected. It is of unusual interest, therefore, to receive from his hands a volume explaining that economic philosophy which will underlie his influence and his advice. Although written by an academic economist, it is having a deserved popularity among the American laymen, and should prove to be of great significance to English economists, statesmen, and business men.

The underlying philosophy of Dr. Tugwell's book is suggested in the following quotation (p. 7): "I believe, myself, that we are within a stone's throw of the end of labour—as labour, not as willing and co-operative activity. We know how to make machines do nearly everything. Only defective social mechanisms prevent the consummation of the trend toward the abolition of employment."

His appeal for "the abolition of employment" is rather startling, especially in these days, when we are devoting so much thought and effort to the discouraging attempts to provide adequate employment for all. But Dr. Tugwell is going behind the expediencies of the present, and is seeking to present a new economic philosophy. He calls attention to the "new education," *i.e.* that system of schooling which depends upon the stimulation of interest and voluntary effort, and which permits naturally constructive inclinations to be effectively pursued. Such educational freedom he commends. But: "Does anyone imagine for an instant that such education and our customary factory work belong in the same world together?" Obviously not. In order that our economic lives might be led in a fashion more in accordance with our educational theory, Dr. Tugwell urges the greater development of machine technology. He hopes

that ultimately all labour suited to mechanisation might be performed by machines, leaving man free to do that which only man can do: think.

In order to accomplish this end, we must have a free flow of goods and services. We must not be burdened with recurring trade depressions, with the constant waste involved in competition, with the stultifying of the brain-power of the masses of men. We must positively encourage the serialisation of industrial processes (the "assembly line") and the avoidance of unnecessary human labour. We must control the allocation of capital funds and the prices of goods in the market. In short, we must break down the traditional anarchy existing in the industrial structure and must recognise that *laissez-faire* is long since dead.

But Dr. Tugwell carefully avoids the preaching of socialism. Ultimately, perhaps, he is closely akin to the socialists, but for the present he calls himself a "liberal," and retains in his system the private ownership of property. Although he invests Government with extensive control over industry, a large part of this function seems to be to assure the continuity of profit. The machinery for this control is suggested by factors of the present environment, as follows.

Industry's ability to produce has already been adequately demonstrated by experience. Scientific organisation and development, conducted within industries or concerns, have borne abundant fruit. But between different industries or concerns there is almost anarchy, with the result that some are underdeveloped, while others are over-developed. The gains made in technical progress within one industry are offset by the competitive practices of another. And periodically, due chiefly to our economic anarchy, the business cycle reduces much of our vaunted progress to dust.

But such ability as industry has demonstrated is to be made use of, according to Dr. Tugwell's suggestion, by a system of democratic co-ordination. He proposes that all of the concerns within an industry be formed into an "association." These cartellised industries, then, are to be largely self-governing, but subjected to specific control by some powerful national agency, or Board. Representatives of the industries themselves, and of the labourers employed therein, are to participate, with public officials, in this control. This democratic dictatorship is to allocate capital funds, supervise working conditions, and, when necessary, fix wages and prices.

That Dr. Tugwell's plan is in close harmony with President

Roosevelt's policy is evident by a consideration of the Industrial Control (National Recovery) Act, which became law in the United States on June 16, 1933. But as to whether or not the ultimate philosophy of the Administration is in accord with Dr. Tugwell's neo-socialism, only time can tell. The Tugwell plan, like the President's, is subject to the criticism that too much depends upon personnel. With the return of easier economic conditions, will the national Board become a mere political plaything? Or, even worse, will it become the tool of unscrupulous capitalists? This danger is inherent in both plans.

But to Dr. Tugwell, such a miscarriage of detail would not be calamitous, provided always that the ultimate goal of a new economic order and the "industrial discipline" were kept in mind. Liberalism requires experimenting, and perhaps the "Industrial discipline," after much trial and error, will result in an economic society motivated by service rather than by profit.

This is a book which most readers, although disagreeing with many of its contentions, will find to be unusually inspiring. Dr. Tugwell writes remarkably well, and his reasoning is logical and lucid. He never loses sight of his philosophy, and yet he is not above paying close attention to practical details. The chief interest of his book, however, lies in the bold sweep of his comprehension and in his prophetic genius which, it seems, explains to us that new doctrine which is already dispossessing *laissez-faire*.

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American Business Leaders. By F. W. TAUSSIG and C. S. JOSLYN. (New York: The Macmillan Company. 1932. Pp. 319. 18*s*.)

THIS is a carefully planned and skilfully executed inquiry into the social origins of American business leaders. The object was, first, to determine the contributions made by the several social classes to business leadership, taking into account the proportions of the different classes in the employed population at large, and second, to throw light on the question whether the disparities that are found to exist are to be attributed mainly to inborn variations in ability or equipment, or to differences in environmental opportunity. Business leaders are defined as persons occupying a major position in a business of such size as to be of more than local importance in its field. The data were

obtained by means of a questionnaire circulated to about fifteen thousand individuals, selected, in accordance with this definition, from Poor's Register of Directors. Replies were received from nearly nine thousand persons, or roughly 58 per cent. The questions were designed to elicit objective information about the respondents' present status, the size of the business, the principal occupations of their fathers and paternal grandfathers. The environmental factors considered were the extent of formal education and business training, financial aid in the early stages and influential connections. The data thus obtained were carefully tabulated on the basis of the geographic distribution of the sample, the size of the business, of which five grades are distinguished, ranging from a gross income of $500,000 to $5,000,000, and age and time factors were taken into account.

The main conclusions relating to the first part of the inquiry are these. More than half, or 56·7 per cent., of the present generation of American leaders are sons of business owners or business executives. Not more than 12 per cent. had fathers who were farmers, and only about 10 per cent. had fathers who were manual labourers. The professional classes contribute about 12 per cent. The proportion of farmers' sons who are leaders shows a tendency to decrease, a fact no doubt due to the decline in the ratio of farmers to the general population. On the other hand, the proportion of business men's sons is increasing, and it is held as probable that by the middle of the century two-thirds of the successful business men will be recruited from the sons of business owners or executives. It is even more striking to note that about 30 per cent. of the business leaders of the present generation are the sons of "big" business men, that is, men occupying major posts, or large owners, and that there is reason to believe that the proportion of leaders so recruited is increasing. About 45 per cent. are owners or executives in the same business concerns as those in which their fathers were owners or executives. The leaders of business do not constitute a strictly inbreeding caste, but the representation of the well-to-do classes is increasing rapidly, and at the present rate of increase they are soon likely to become the dominant element.

The contributions made by the different occupational classes are very unequal. The labouring classes constitute about 45 per cent. of the employed population, but their share in leadership is only slightly more than 10 per cent. The business and professional classes, which constitute about 10 per cent. of the

employed population, contribute no less than 70 per cent. The authors compare their results with those obtained by inquiries in Europe and America into the social origins of distinguished men in various walks of life, but their discussion of these is slight and they are, I think, somewhat uncritical in handling them. They note, in particular, a striking agreement between their findings and those of Prof. Visher in his study of the origins of men of distinction included in the American *Who's Who*. Prof. Visher found that nearly 70 per cent. of men of superior talent in the arts and sciences were sons of professional or business men, while the working classes contributed about 6 per cent.

In dealing with the second part of their problem our authors on the whole favour the view that the differences in the productivity of the several social classes are not explicable by such differences in environmental factors as they have been able to study, or, more positively, that they are due primarily to differences in native ability. The arguments which they adduce are numerous and complex, and though none is claimed to be decisive by itself, they think that taken together they strongly support the theory of genetic differences. They can here be only very summarily indicated. (i) The proportion of labourers' sons is not markedly larger, as would be expected on the environmental view, in the higher ranks of business where conditions of entry are in America not obviously unequal, than in the professions where differences in educational opportunity must seriously handicap the sons of workers. (ii) Only about 12 per cent. of the respondents stated that they had received substantial financial aid during the early stages of their careers, and only 30 per cent. that they had had influential connections, in the sense of friends or relatives who were owners or executives in their first or present business. (iii) It does not appear that the more successful among them were more favoured in this way than the less successful. The proportions of labourers' sons in each of the grades or sizes of business distinguished are not markedly different from the proportions found among the sons of the well-to-do. There is no close relation between these environmental conditions and distribution according to grade. (iv) Leaders of lower-class origin do not appear to have taken a longer time to reach their positions in the various grades than those who came from more favoured classes. (v) There is a clear correlation between degree of schooling and business achievement, but our authors are inclined to attribute this correlation for the most part to the selective influence of the educational system, that is, they regard

success in business and superior educational attainments as the common results of inborn ability. There appears to be no relation between formal *business* training and degree of success in business, except that such training does seem to have some influence on the time taken to reach a given position.

The facts brought to light in this inquiry are clearly of great value and interest, especially when compared with what is known of the occupational stratification of other countries. On the other hand, the conclusions regarding the causal agencies involved must be received with caution. The limitations of the inquiry must be borne in mind. The authors were rightly anxious to avoid subjective and unverifiable factors, but the "imponderables," as they call them, do not lose their importance merely because no methods are at present available for dealing with them. Consider, as an example, their study of "influential connections." This term is restricted for the purposes of the questionnaire to friends or relatives interested as owners or executives in the business of the respondent, and deliberately excludes the less direct but none the less extremely important influences of wider social contacts and opportunities open to the children of the well-to-do. More serious misgivings suggest themselves when we remember that only very obvious environmental factors have here been taken into consideration. Our authors make no attempt to study the mental qualities necessary for success in business, or to estimate the relative importance of ability, whether general or specific, and traits of temperament and character. Such qualities as energy, assertiveness, persistence, singleness of purpose, ambition, the desire for power and the like are probably at least as important as ability. But we possess very little knowledge of the degree to which these characteristics are determined by heredity, or of the extent to which they are moulded by variations in the environment, particularly in early childhood. The technique required for disentangling genetic from environmental factors is only in its initial stages, and has so far proved too crude for any but the most superficial analysis. A study such as that made in the work before us, compelled as it is to confine itself to gross differences in the environment, and completely ignoring psychological and genetic analysis, cannot, it seems to me, hope to establish any reliable conclusions in a matter so intricate and complex as the share of genetic differences in social stratification. Sociology and genetic psychology must here join forces if any real progress is to be made.

MORRIS GINSBERG

Theory of Location of Industries. By A. Weber. English Edition, with Introduction and Notes by C. J. Friedrich. (Chicago University Press, 1929. Pp. 256, 13*s.* 6*d.*)

The translation of this well-known book is to be welcomed, since English economists have produced no comprehensive work on the location of industries, although, at first sight, this appears to be a subject highly susceptible to scientific and theoretical treatment. Weber, in this volume, is concerned with a theoretical analysis of the forces making for the geographical distribution of industry in what he describes as a "pure" economy. These forces he classifies into the two "general regional factors" of transport costs and labour costs and the "specific" factors of "agglomeration," which comes very near to our more commonly used "external economies," and "deglomeration," which appears to mean the increased rental of land arising from industrial concentration. Within this framework he is able to weave a most intricate pattern of the location of industry arising out of a given set of conditions. He sees the process of location as the resultant of the operation of a number of pulls exercised in different directions.

But it is doubtful whether the elaborate development of terminology and of hypothetical illustrations, based upon his simpler conceptions, really amounts to any expansion of economic theory. Everyone would admit that the location of industries is influenced by transport and labour costs and by external economies or diseconomies. But such propositions hardly seem to be usefully expanded by some of Weber's more refined classifications, as, for example, between "ubiquities" and "localised materials," or by his complicated geometrical or trigonometrical solutions of problems of location which necessarily make use of assumptions of the most artificial kind.

Perhaps, however, a more important criticism of the work is that, by employing the purely theoretical approach, Weber is unconsciously "rationalising" the processes which make for localisation, and thus rendering his theory useless, or at least irrelevant, in considering the actual dynamic forces which produce the lay-out of industry. If an entrepreneur always did know the location of his consumer, his labour and his raw materials, he might conceivably make the sort of decision which Weber illustrates in his diagrams. But the truth is, of course, that in a competitive system no entrepreneur ever knows from one day to another where his consumer will be found. Yet he has to make a decision regarding the location of his plant in the light of

forces which are, in themselves, inevitably indeterminate. Indeed, it is arguable that the most important part of the economic theory of location of industries is not that which concerns itself with why the original decisions regarding the location of a plant are made, but why, once the decision is made, that location will be maintained even when it has become relatively unsuitable. In that sense the theory of location is a part of a general theory of the influence exerted by overhead costs. It does not seem true that the choice of a site for a plant is a purely economic action. Marshall in his treatment of the problem of wages was at pains to point out the economic consequences of the social facts that labour cannot be dissociated from its place of work, and that, in considering wage disparities between different occupations, the amenities of those occupations should be kept in mind. Similar influences must impinge upon the entrepreneur. If he has to live near his new plant, certain localities may be excluded from his choice by the very fact that he does not wish to live in any of those localities. If, in answer to such a view, it is urged that the inefficiently located plant will be eliminated by competition, the rejoinder surely is that the error of any one business man may continue without penalty because he is competing with other business men who are making similar errors. We have no right to assume that business competition takes place on the level of theoretical optimum efficiency.

Weber, in this volume, promises a companion work, which has apparently never appeared, in which he would seek to study existing conditions in the light of his wider generalisations. If he had undertaken the realistic side of his study, it is reasonable to believe that he would have modified his theoretical conceptions of the economic mechanism of industrial location. Certainly in some of his more practical moments in this volume, as in his views of the future of vertical integration in industry, he reveals beliefs which a study of the facts would have dispelled.

JOHN JEWKES

National Collective Bargaining in the Pottery Industry. By DAVID A. MCCABE, Ph.D. (Johns Hopkins Press and Humphrey Milford. Pp. 449. $3.50.)

Co-operative Banking. By N. BAROU, with an Introduction by SIDNEY WEBB. (P. S. King and Son. Pp. 331. 15*s*. net.)

PROFESSOR MCCABE in this painstaking compilation has made a significant addition to the growing list of source-books of realistic economics. The work is a monument of pure description;

and future students of industrial relations in the American pottery industry will be laid under a debt of gratitude to the author. In great detail the story is told of the rise and decline of collective bargaining in two divisions of the pottery industry of U.S.A.—the "general ware" and the "sanitary" divisions—from the formation of the Potters' Association in 1874 to the collapse of national collective bargaining in 1922. The layman acquires a good deal of insight into the technical processes of pottery manufacture. He learns of the functions of "jiggermen" and "saggermakers" and "batters-out," of the finances and officers of the conservative brotherhood which represents the skilled workmen, of the diversities of the Eastern and the Western sections of the trade, and of the practices with regard to sub-contracting, to apprenticeship and to demarcation. But the book stubbornly remains a chronicle rather than a history, a photographic record and not an analysis. The author is sternly unwilling to light our way with comment, emphasis or generalisation. Even in listing the proximate causes of the final breakdown of negotiations he is very cautious, and devotes merely two final pages to the suggestion that the breakdown came because the employers were threatened by the competition of non-union firms and were "soured by what they considered a changed spirit on the union side," while the union was too obstinate to accept concessions. Can it be that this absence of illumination is due to fear of offending one of the parties in the industry? Or perhaps the meagreness of generalisation is due less to the author's caution than to his choice of material: the section of the industry with which he deals seems to have sufficient peculiar features for its problems to have little parallel in industry at large.

The book by M. Barou is also in the main an industrious compendium of figure and fact. But the author paints on a larger canvas; and from his survey of fact certain definite judgments emerge. These judgments give the book a special interest which goes beyond the category of the usual reference book. As a study of a social institution, it is prefaced by a careful definition of social purposes, which in the descriptive chapters provides the author with certain standards of criticism, gives a design to his analysis and leads him in conclusion to certain positive recommendations on policy and organisation.

In the author's view the function of co-operative credit is, not only to act as a specialised institution for financing the operations of co-operative societies, but also to provide a means of organising personal loans, on a co-operative basis, to meet the fluctuating

circumstances of the wage-earner's life. As Lord Passfield says in his Preface: "Almost every family in the poorer half of any modern community finds itself occasionally needing, suddenly and unexpectedly, to incur thoroughly justifiable expenditure which it is impossible to meet out of the weekly income. Putting aside any question of extravagance or self-indulgence, there are a whole range of cases in which such expenditure may almost be called necessary. There are the incidental costs of illness or of accident; there is occasionally a real need to take a journey to another city; an obligatory removal of the household to a distance may be nearly as expensive as a destructive fire; there may be actual losses of 'the week's money' by accident or theft. . . . Young people leaving home for employment require at least some outlay." M. Barou has some interesting citations which show the alarming, and surprising, extent of usury among the poor, such loans being quite commonly at rates of over 200 per cent., and ranging even up to 400 or 500 per cent. Many factories have their regular money-lenders' agent, who makes it his duty "to keep a watchful eye for a worker in trouble." In U.S.A. the evil is even greater, with its network of "loan-sharks" and a special system known as "salary-purchasing." To control such exactions by legislation is difficult or impossible, since "the costs and risks of the business (are) so high that a high rate would have to be legalised to get lenders to go into business." "The weakness of the reformers lies in the fact that they have no substitute for the existing usurious and expensive credit organisation of the money-lenders." To M. Barou the only solution is to introduce the principle of co-operative credit, which alone can organise the type of guarantee to enable such personal credit to be made on reasonable terms. "Proper organisation of credit facilities will be the best method of dealing with the over-extension of the hire-purchasing system and the evils which it involves; but at present the organisation of personal credit is still in the initial stage, as the individual borrower belonging to the working population has not much security to offer."

M. Barou proceeds to a careful survey of the dimensions of working-class savings at the present time and an illuminating analysis of the social strata from which the deposits of savings banks and co-operative societies are drawn. He suggests that the proportion of the gross deposits of savings banks held by manual wage-earners is much less than is often supposed, and he points out that the large majority of depositors have holdings of less than £5. At the same time, while "the average savings of the

individual wage-earner are very small, the total of these savings represents a sum equal to approximately half the banking deposits in Great Britain." It is these savings which, in the author's opinion, an adequately developed system of co-operative banking could and should mobilise to enable it to fulfil those important credit-functions for which it alone is completely fitted.

The middle chapters of the book are concerned with a comprehensive description of co-operative credit institutions in various countries, from the classic Raffeisen and Schulze-Delitzsch banks of Germany to the Co-operative Banks of U.S.S.R. and the Labour Banks in U.S.A. Of the latter the author is critical. "With very few exceptions," he writes, they have been "the least successful members in the family of labour and co-operative banking. . . . They have merely created, with very few exceptions, badly run ordinary banks for trade unions and trade unionists. . . . They found no new fields in which to work, and were easily beaten by their powerful commercial competitors." One could have wished that more had been said about the machinery of co-operative credit in U.S.S.R., and in particular of its operation, concerning which M. Barou, as a director of the Moscow Narodny Bank for so many years, is particularly qualified to speak; and his mention of the effects in this field of the "credit reform of 1930" is too bare to be enlightening. But as he has already published a separate study on the subject of Russian Co-operative Banks, he not unnaturally contents himself with referring us to this work. M. Barou has also some interesting remarks on the need for liquidity of assets in co-operative banking and on the financing of foreign trade; and he closes with a plea for an international co-operative bank.

MAURICE DOBB

The Rise of the British Coal Industry. By J. U. NEF, Ph.D., Associate-Professor of Economics in the University of Chicago. (London: Routledge. 1932. 2 vols. Pp. xiv + 448, vii + 490. 42*s*. net.)

THIS work, which is the sixth of the Studies in Economic and Social History issued by the London School of Economics, treats of the early history of the coal industry with special reference to the part played by it in the evolution of industrial capitalism. Its general scope may be gathered from the titles of the five parts into which (besides a short introduction) the 778 pages of text are divided; they are—the expansion of the coal industry, coal and industrialism, coal and the ownership of natural resources, coal and capitalism, and coal and public policy. There are

seventeen appendices, including twenty pages of bibliography, statistics of production and consumption, statistics of shipments of coal, coal prices, extracts from colliery accounts, and sundry illustrative documents. Further, there are four maps of British coal-fields and ten illustrations. One is almost appalled at the industry of the author. Every statement made is very fully documented, the reader is carefully warned when the evidence is dubious, and in every matter of controversy every possible view is given fair play. No doubt it is the duty of the researcher never to falter in seeking out the truth, never to put it forward for more than it is worth, and never to hide it when it is unpalatable, but human nature is weak and great praise is due to Professor Nef for the high degree of impartiality which he shows. Not that he hasn't got his own economic preferences or prejudices; they peep through occasionally and now and then add a drop of piquancy to his narrative. The period covered was the seed-time of capitalism in which the coal industry was a new and sturdy plant, and Professor Nef's work will long remain authoritative for the century and a half in which the British coal industry grew up. It is to be added that, despite all the masses of details and the careful weighing of evidence, these two volumes are extraordinarily readable and in parts even thrilling, for contemporary documents are used so skilfully that the old prospectors and speculators, the monopolist hostmen of Newcastle, the greedy merchants, the mine-slaves of Scotland, the shivering poor of London, the grafting court-favourites, and many other figures live again before our eyes.

The working of coal outcrops no doubt began very early, for the first English record, in 1243, shows miners digging down to the dip of the seam. The market was purely local except that a few thousand tons were carried from the Tyne coastwise or even to the Continent every year during the fourteenth century. Professor Nef's history really begins about 1550 and covers the hundred and fifty years to 1700. Naturally, precise statistics are wanting, but some evidence is available, and the conclusion that the annual output of the British coal-fields increased from 210,000 tons in the first decade of the period to 2,982,000 tons in the last decade, probably represents the facts with sufficient exactitude. The chief producing areas showed the following percentages of output at the beginning and end of the period respectively:—Durham and Northumberland, 31 and 41; Midlands (including Yorkshire and Lancashire), 31 and 29; Scotland, 19 and 16; Wales, 10 and 7. At the end of the seventeenth

century about 1,280,000 tons were carried to market by sea or river—455,000 tons to London and the Thames valley, 235,000 tons to other parts of the east and south-east coasts, 190,000 tons to other British coast towns, 250,000 tons by river, and 150,000 tons to foreign countries and the colonies. The rest of the coal was consumed in markets not more than ten or fifteen miles from the pits, for the cost of carriage over the bad roads by cart or pack-horse was great. Probably about one-third of the output was consumed for industrial purposes and the rest, except for the small export, was used domestically. "It is not improbable that there were, in all, between 15,000 and 18,000 pitmen at the end of the seventeenth century (and) . . . that nearly half of all the coal-miners in Great Britain worked for collieries employing a hundred or more hands."

This great development was in part due to the depletion of the forests of the country by the demands of a growing population for wood for building and fuel, and it was facilitated by the confiscation of coal-bearing lands previously in the possession of religious corporations, the mines being let to adventurers by the Crown at low rents. This was not all, however, for Professor Nef holds that "such information as has been found suggests that, while the expansion in coal-mining was undoubtedly more rapid than that in other industries, this expansion is not an isolated phenomenon in early British economic history, but part of a general industrial development, the importance of which has not yet been fully appreciated. This industrial development not only involved a remarkable growth in the output of many commodities; there were also technical developments and changes in organisation, which, together with the evidence of a rapid growth, lead us to suggest very tentatively that the late sixteenth and seventeenth centuries may have been marked by an industrial revolution only less important than that which began towards the end of the eighteenth century" (Vol. I, p. 165). The evidence adduced certainly shows that there was "a sharp expansion of native industrial enterprise" under Elizabeth and James I, but the growth of coal-mining was less rapid afterwards owing to the interruption of trade through continuous wars.

Coal-mining was a highly speculative industry, requiring much capital for sinking pits, for ventilation, for haulage underground and above ground, and for sea-transport. This capital was in part provided by landlords who worked their own coal, especially in Scotland, in part by merchants in towns near the collieries, and even from speculatively inclined persons in London. The

vicissitudes of the industry were great and this reliance on outside capital and the relative advantages of the larger mines, which were, according to the ideas of the time, large-scale enterprises, mark out the coal trade as belonging to the modern capitalist system. In the end it was the port merchants, the shippers of coal, and the merchants in London and other consuming towns who profited at the expense of both the coal-owner and the coal-user. The story of the hostmen of Newcastle with their monopoly of shipment from the Tyne is told anew by Dr. Nef from fresh documentary sources, and the tale of their control over the mines and over the corporation of Newcastle and of their intrigues with the Court and with Parliament shows that they would have little to learn from the most modern practitioners of predatory monopoly. At the other end of the trade-chain the wholesale and retail coal merchants of London provided a pitiably sordid exhibition of the worst trade practices.

The social aspects of the new industry also make melancholy reading. Coal was at first hated by the householder as a poisonous, stinking fuel, and therewith went contempt for all connected with the handling of the stuff, whether coal-miners or coal-heavers. The miners were not as a rule drawn from the local rural population, they were mostly "rogues and vagabonds," prisoners of war, or others who could more or less illegally be pressed into service. In Northumberland and Durham they were largely broken men and covenanters from Tweedside. Little wonder they were regarded as a race apart, as savages for whom their employers did nothing; little wonder that the Scots noblemen who dominated the Privy Council of Scotland were able to reduce to slavery the workers in their pits. Yet Wesley found those same "savages" ready to listen to him, and Professor Nef thinks with reason that the current popular estimation was based mainly on prejudice.

Much in these two volumes has not even been alluded to here, but we cannot part from them without referring to the author's most important discussion on the influence of coal on the fortunes of the Civil War. Had Charles I succeeded in holding Newcastle, would the common people of London, starving for want of fuel, have revolted and forced the Parliament to surrender to the King? H. W. MACROSTY

Some Aspects of Indian Foreign Trade, 1757–1893. By DURGA PARSHAD. (P. S. King & Son. 1932. Pp. 238. 12*s*.)

IN the first chapter of this book we have a sketch of the trade situation in India during the half-century previous to Plassey, in

the second of the East India Company up to the withdrawal of its monopoly in 1813, and in the third of the main developments in foreign trade under monopoly from 1757 to 1813. In the remaining two chapters we have a brief account of India's foreign trade from 1813 to 1893. There are ample footnotes, a collection of statistical tables and an admirable list of authorities consulted by the writer.

The author is a severe critic of the East India Company from the purely Indian view-point. He is careful, however, to show that as a result of the progress of the Industrial Revolution in England, high import duties were placed on Indian cotton manufactures, especially in the first fifteen years of last century, while at the same time exports to India were greatly increased as a result of the introduction of machinery. It is often not realised how the growth of the Industrial Revolution spelt disaster for the Indian cottage workers, as indeed it did for the English. In 1781 an Act of the British Parliament prevented the export of machinery used in cotton, woollen and silk manufactures, and in 1782 an Act prevented British workmen from going "to ports beyond the seas." By the Customs Regulation Act, 1825, discretionary power was vested in the British Board of Trade permitting the export of machinery when it was of great bulk and contained a great quantity of raw material, but restraining it when it was of modern improvement. This was done away with in 1843. The tariff policy of Great Britain was bound up with the Industrial Revolution. The British tariff rates between 1797 and 1814 were increased from 18 to 67½ per cent. on calicoes and from 20 to 37½ per cent. on muslins, with the result that India's manufactured goods were bound to find their British market gone. These are important facts. But I am not sure whether Dr. Durga Parshad is at all on firm ground when he emphasises the drain of wealth and capital from India during the period of the East India Company's monopoly to the extent that he does. The statistics of bullion and indeed the trade statistics are most incomplete and they do not cover the total exports or the total imports of India, including all rival companies. It is not until 1835 that Indian trade statistics are in any degree complete. At the same time the economic historian would probably agree that fortunes were made up to 1785 or even later with considerable ease as the officials of the Company were also traders. Clive left India after his first administration with a large fortune which, I believe, was estimated at £40,000 per annum. Barwell says that Clive cleared more than £200,000 during his second term of office. Barwell is

reported to have had a fortune which popular gossip put at £800,000. Warren Hastings drew under the Regulating Act of 1773 £25,000 per annum, and after he returned to England he had £80,000. The notorious Francis, an obscure dismissed War Office clerk, after six years' service finally returned with a fortune that yielded him £3,000 a year for life. But in the nineteenth century such fortunes were a thing of the past except in exceptional cases. Lord Macaulay when he came out to India as Law Member in 1833 had the same object as Francis, "to make a competency," and he wrote to his sister that he expected to "lay up on an average about £7,000 per annum while I remain in India." But these were occupants of high office and in former times. India to-day is no longer the fabled mine of wealth to the high official or even to the business man. The profits cannot for the period referred to by the author be estimated as the author supposes by the incomplete statistics of merchandise and bullion.

The view taken up by Dr. Durga Parshad is one that is becoming more and more popular with Indian writers whose motto, indeed, is "Back to Adam Smith." Did not the author of the *Wealth of Nations* in 1776 find fault with the East India Company for trying to do things which are quite incompatible—trading and governing? "It is a very singular Government," he says, "in which every member of the administration wishes to get out of the country, and, consequently, to have done with the Government as soon as he can, and to whose interest, the day after he has left it and carried his fortune with him, it is perfectly indifferent though the whole country was swallowed up by an earthquake." It is less the fault of the men than of their situation, "such exclusive companies are nuisances in every respect."

The two main defects of the book are occasional slips of fact and a lack of unity, especially in the last two chapters. An example of the former is the reference to Warren Hastings as "Lord Hastings." Hastings never received a peerage. There is also much that might be called "patchy," especially in the last two chapters. The book compares unfavourably with Dr. Khan's *East India Trade in the Seventeenth Century* and of Dr. Balkrishna's *Commercial Relations between India and England, 1601–1757*, both of which are similar studies. The statistical tables are almost always not for the whole period covered by the book, and their construction is often so awkward as to make their reading very difficult.

G. F. SHIRRAS

Unemployment in Germany since the War. By KENNETH INGRAM WIGGS, Ph.D. With an Introduction by HENRY CLAY, M.A. (P. S. King & Son, Ltd. Pp. x + 216. 10*s.* 6*d.*)

DR. WIGGS, by this study, makes necessary a re-examination and, if his conclusions be correct, a re-evaluation of the influences underlying the economic vicissitudes of post-war Germany. In some cases his findings give support to conclusions already generally accepted; but in other important instances he is not at all in agreement with general opinion. The most significant of his dissensions have to do with the respective influences of Reparations and rationalisation.

Holding that "too much emphasis has been laid upon Reparations," he assigns to them an importance considerably less than usual. Whatever difficulties were inherent in the burden of Reparations—and he does not seek to minimise those difficulties—were aggravated by budgetary factors and thus made to appear much more significant than in themselves they were. But Reparations itself he cannot consider a pre-eminent factor leading to the economic conditions responsible for the unprecedented volume of unemployment.

Of greater immediate moment, however, are his conclusions as to the effect of rationalisation on employment. The American "Technocrats" seem to find that human labour is becoming obsolete through the rapid introduction of labour-saving machinery; and they bring forth no end of statistics to prove their point. Dr. Wiggs, however, finds that, in the case of Germany at least, during the period of most rapid technical advance, employment, far from falling off, actually, though slightly, increased. Probably in no other country in the world, not even in the United States, was there ever so intense a process of rationalisation as there was in Germany between 1925 and 1929; but in this period the number of persons at work increased by 379,000. It becomes impossible, then, to charge the phenomenal increase of basic unemployment to the too-rapid introduction of labour-saving machinery. This apparent contradiction—for both employment and *un*employment increased simultaneously—is to be explained, according to Dr. Wiggs, by movements in the composition of the population, the unequal age-progressions of which have brought about an abnormal glut on the labour market. His findings as to the effect of rationalisation on employment—not the long-run, but the short-run effects, for the period 1925–29 may be regarded only as short-run—are the most significant, without doubt, of the entire treatise. It

constitutes an important contribution to the literature of that much-debated subject, technical rationalisation.

Dr. Wiggs thus maintains, contrary to the general view, that the burden of Reparations and the rapid introduction of labour-saving machinery cannot explain the extent of German unemployment since the War. The increase of cyclical unemployment, as contrasted with the increase of basic unemployment, he explains by a government and trade union policy "which has aimed at better than pre-war standards (of living) without having due regard to what was economically possible." The high and rigid level of wages, which made it difficult, and sometimes impossible, to carry on enterprise, is made to account for the greater part of post-war unemployment. This contention, in reality a central thesis of his work, will probably call forth some little controversy.

The book is not, however, without its faults. It lacks somewhat in lucidity, and the organisation and presentation of material are not beyond criticism. It is, nevertheless, the most adequate treatment in English of an important post-war problem.

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NOTE:—In our June issue, the price of Wicksteed's *Common-sense of Political Economy and Selected Papers and Reviews on Economic Theory* was incorrectly given. The book is published in two volumes, the first at 8*s*. 6*d*., and the second at 12*s*. 6*d*., by Routledge and Sons, Ltd.

NOTES AND MEMORANDA

A Note on German Agriculture

The position of German agriculture is at the present time so serious that the Government is introducing a law for the compulsory conversion of agricultural debts.

The total indebtedness of agriculture during the last nine years was as follows:

1924 . .	4·6 milliard Rm.	1929 . .	11·4 milliard Rm
1925 . .	8·0 ,,	1930 . .	11·6 ,,
1926 . .	8·7 ,,	1931 . .	11·8 ,,
1927 . .	9·9 ,,	1932 . .	11·4 ,,
1928 . .	10·8 ,,		

The whole of this debt dates from the stabilisation of the mark after the inflation. The total indebtedness of agriculture in 1913 was between 17 and 18 mld. Rm., but the actual burden of debt before the war was considerably less, for the average rate of interest was much lower. Thus in 1913 the annual interest charge was between 750 and 800 mill. Rm., while in 1928 it had already reached 920 mill. Rm.

Increasing indebtedness is, of course, usually characteristic of any expanding section of industry, agriculture or public enterprise. Increasing debt, however, is bearable only if accompanied by a corresponding amount of investment and expanding receipts. A report of the German "Economic Research Institute" entitled "Formation of capital and investment in Germany, 1924–28," comes to the conclusion that "the investments in agriculture between 1924 and 1928 were less than the sums written off." If the increase in the number and quality of stock and the increased value of land due to improvements are added, we reach a total of 2·4 mld. Rm. This sum is quite inconsiderable compared with the increased indebtedness amounting to 6·8 mld. Rm.

Until 1929 the debt was no burden on the average farmer or peasant, for the sum borrowed each year was more than enough to pay the interest. In 1930, however, the increase in debt was only 200 mill. Rm., while the interest which had to be paid was about 1,000 Rm. At this point the difficulties of agricultural debtors became acute. The position is very analogous to that of Germany as a whole, whose financial difficulties began with

the sudden cessation of lending by the United States and Great Britain. Not only was the credit position of German agriculture in the pre-slump period unstable, but the one-sided protectionist policy laid the foundations for a severe agricultural crisis.

Germany is for the most part a peasant country; in the east, however, there are a large number of big estates mostly of feudal origin. These large estates obtain 75 per cent. of their gross receipts from the sale of grain. The small and middle peasants, on the other hand, depend for 70 per cent. and 67 per cent. respectively of their income on the sale of live-stock products. In the face of low and sinking grain prices on the world market, the large landowners were able to obtain protection for themselves through political influence, even under a Social Democratic Government, in the form of high tariffs on wheat, rye, barley, oats and a Government maize monopoly. The prices of wheat in Berlin and New York will serve to illustrate the extent of this protection.

	1930–1.	1931–2.
Average price in Rm.	26·02	23·63 in Berlin.
Average price in Rm.	14·51	10·18 in New York.

The high price of grain alone was quite inadequate to keep these inherently unprofitable semi-feudal estates intact.

The big landowners demanded subsidies, and such was their political influence, that ever larger sums were placed at their disposal through the "Osthilfe" scheme. Some 600 mill. Rm. have already been swallowed by the landowners without the community obtaining any advantage. Less than 10 per cent. of this huge sum has been used for the relief of peasant farms under 100 ha., in spite of the fact that such peasant farms cover a considerably larger total area than the large estates. The whole "Osthilfe" scheme is an example of far-reaching political corruption.

The policy of high grain-tariffs is certainly no better, as the figures already quoted illustrate. The large landowner was able to obtain protection for his product—grain—at a very early stage. These grain-tariffs were only detrimental to the peasant, 70 per cent. of whose market-produce is live-stock products. This one-sided protectionist policy first had the effect of increasing the price of fodder, and secondly of decreasing the purchasing power of the industrial population upon which the peasant is dependent for a market. Throughout the crisis the purchasing power of the German industrial population has decreased rapidly. This is to a considerable extent due to forces outside the sphere of

agriculture, such as a steadily contracting foreign market and a decrease in industrial investment; it cannot, however, be over-emphasised that this contraction of purchasing power, and so the progressive impoverishment of the peasants, was stimulated by the high price of grain. The following figures illustrate the price movements between 1929 and 1932:

	Vegetable Products.	Fodder.	Live-stock and Meat.	Live-stock Products.
1929 . . .	126·3	125·9	126·6	142·1
1930 . . .	115·3	93·2	112·4	121·7
1931 . . .	119·3	101·9	83·0	108·4
1932 (April) .	122·4	99·7	64·2	90·3

1913, 100.

Here we see that while up to the spring of 1932 the price of vegetable products had hardly fallen at all, the price of fodder had fallen considerably, while the prices of meat and live-stock products had fallen enormously.

It is obvious that the catastrophic fall in price of meat and animal products and the relative stability of grain prices should bring about an increase in the area under grain and a decrease in the amount of live-stock. This has actually taken place, and in 1932 for the first time for fifty years Germany had a surplus production of grain:

	Wheat area.	Crop.
1929	3·96 million acres	123·1 million bushels
1930	4·40 ,, ,,	139·2 ,, ,,
1931	5·36 ,, ,,	155·5 ,, ,,
1932	5·63 ,, ,,	183·8 ,, ,,

The exceptionally favourable weather conditions were to a considerable extent responsible for the good harvest in 1932, but nevertheless the large increase in the area under grain was entirely brought about by the stability of grain prices. The surplus is of the order of 1·2 mill. tons. The result has been a fall of grain prices throughout the autumn of 1932 and record low prices. The big landowners demand that the State should buy the whole surplus and stabilise prices. There is no doubt, however, that the State finances will in future be too weak to restore prices to their old level. Any policy of price stabilisation must in any case be eventually doomed to failure, for it is clear that it would result in a still further decrease in live-stock and increase in grain production, which would only make matters worse. The grain-

tariffs become almost useless as soon as home-supply exceeds demand and thus defeat their own purpose of protecting the large landowner.

In respect of grain-tariffs the German agricultural policy of the last decade is similar to that of Italy, France and Czecho-slovakia. In the latter countries the effects have been no less disastrous; thus in Italy between 1925 and 1929, in a period of general world prosperity, the number of horses fell by 8 per cent., mules by 18 per cent., donkeys by 13 per cent., cattle by 7 per cent., sheep by 20 per cent., goats by 43 per cent., the direct cause of the decreases being the grain-taxes and the consequent change-over from live-stock and fruit production to wheat, which (considering only the interests of the Italian peasants) it would have been better to import. Further, the importance of the contraction of the European market for grain has played an important part in intensifying the world agricultural crisis. There is little doubt but that if all European countries were content to do without grain duties and quotas, and concentrate their attention on other branches of agriculture, North America would have no wheat surplus, but would still be able to increase production at profitable prices.

The new Hitler Government has, however, no intention of reducing or abolishing grain-tariffs and so destroying the large estates, which would undoubtedly be most advantageous to both the peasants and the industrial population. The new policy is only a continuation of the old. The grain-tariffs are to be maintained, while at the same time the duties on all kinds of live-stock products are to be raised in an attempt to help the peasantry. A State monopoly has been introduced for the importation of fats and oils. The following prices illustrate the extent of this new protection :

Average prices in Rm. per 100 kg. (wholesale).

	January 31st, 1933.	May 22nd, 1933.
Lard (Berlin)	102	148
Margarine	116	166
German butter	214	270
Danish butter	235	286
Cooking-oil	68–95	114–40

The price of eggs in June 1933 was 50 per cent. above the price in the corresponding month of 1932. This policy of restricting imports has already led to retaliation by most countries

exporting to Germany, *e.g.* Denmark, Sweden, Holland, Bulgaria, Roumania, etc., which in turn will certainly lead to a diminished German export, diminished purchasing power of the industrial population, and finally further impoverishment of the peasants. The low standard of living of most of the German population results in the demand for such products as butter and eggs being extremely elastic; a small rise in price results in a large decrease in consumption. Thus even a comparatively small rise in duty may cause a relatively large decrease or a complete cessation of imports of such commodities as butter. According to the Liberal Viennese paper *Die Börse*, from June 15th, 1933, the consumption of butter in Berlin decreased in four weeks by two-thirds, the consumption of margarine fell by one-half and of bacon-fat by two-fifths, etc.

During the second week of June the tax on oil-cake was suddenly increased to 60 Rm., which caused an immediate rise in price of about 100 per cent. The receipts from this tax are to be used to support grain prices. It is also hoped that the high price of oil-cake will encourage the peasants to use more rye as fodder. This tax has wiped out with one stroke any temporary advantage which the peasants may have obtained through the increased butter prices.

Thus no solution, but rather an increase in severity of the crisis is to be expected from the new tariff and quota policy. Further, an increase in food prices in the face of decreasing industrial turnover is likely to lead to industrial strife.

It is clear that a policy of all-round protection for agriculture is a policy intended to help the peasant, and in particular the large farmer, at the expense of the industrial population. The following figures illustrate, first, that such an attempt is quite unjustifiable, in that industry has suffered during the crisis much more seriously than agriculture, and secondly, that the prosperity of agriculture is dependent on the prosperity of German industry, and in particular on the ability to export.

	Net Value of Industrial Production.	Net Value of Agricultural Production.	German Industrial Export.
1925 . .	26 mld. Rm.	7·85 mld. Rm.	10·6 mld. Rm.
1926 . .	24 ,,	8·35 ,,	11·8 ,,
1927 . .	32 ,,	9·00 ,,	12·5 ,,
1928 . .	34 ,,	9·85 ,,	14·0 ,,
1929 . .	32 ,,	10·00 ,,	15·1 ,,
1930 . .	26 ,,	9·30 ,,	13·2 ,,
1931 . .	19 ,,	8·10 ,,	10·5 ,,
1932 . .	14·5 ,,	7·10 ,,	6·2 ,,

It is important to emphasise that the importation of foodstuffs has decreased throughout the crisis; it is thus absurd to attribute the decrease of income of the agricultural population to foreign competition, which is, incidentally, the usual National Socialist interpretation.

The conversion of agricultural debts, which is one of the most important schemes promised by the Hitler Government, is also a plan for subsidising agriculture at the expense of the town and city population, for it implies the partial compensation of creditors from State funds. 100 mill. Rm. have already been put aside for this purpose.

The following figures illustrate very clearly how inadequate the proposed scheme of debt conversion is likely to be. In 1932 German agriculture received a surplus of only 350 mill. Rm. over prime costs. Prime costs include very modest allowance for amortisation and living expenses, but nothing for interest, taxes or social charges (insurance, etc.). At the same time agriculture is expected to pay the following supplementary costs :

Interest	650 mill. Rm.
Personal taxes	60 ,,
Social charges	300 ,,
Turnover tax	90 ,,
Other taxes	450 ,,
Total	1,550 mill. Rm

The actual scope of the debt-conversion scheme is still uncertain. Hugenberg's resignation in particular has radically changed the outlook. Darré, the new Minister of Agriculture, previously advocated a much more drastic reduction in debt than is proposed in the Hugenberg plan, which has already become law. This plan foresees a conversion of agricultural debts on to a 4 per cent. basis, while Darré intends to carry through a compulsory reduction of interest rates to under 2 per cent. Even more important than the reduction in interest rates is the compulsory writing-off of debts. The Hugenberg plan foresaw a maximum reduction in debt, in particular cases, of 50 per cent., while Darré is in favour of more drastic action.

Let us assume that the burden of interest is reduced by 60 per cent.—say 400 mill. Rm. This would reduce the total "supplementary costs" to 1150 mill. Rm., which is still three times as large as the surplus which the farmer and peasant might be expected to pay. The position is so serious that no amount of modification of interest payments or taxation can prevent a progressive deterioration of the position. The only way out of

the agricultural crisis is clearly a restoration of the purchasing power of the industrial population. The conversion scheme, which implies the partial expropriation of creditors, will certainly affect the general credit situation adversely, probably leading to a rise in interest rates in the country as a whole; this is of great importance, for it is clear that a fall in interest rates—particularly of the long-term rate of interest, which is now over 7 per cent. on first-class gilt-edged bonds—is a preliminary condition for recovery from the present slump.

The National Socialist Government are not entirely unaware of the "lop-sided" nature of their agricultural policy. It is not, however, realised that such a policy must lead to an intensification of the slump and a further contraction of incomes. The policy is defended on political and social grounds. A prosperous agriculture is necessary in case of military complications! A prosperous peasantry is necessary to supply the Reichswehr and the Police Force!

The National Socialists are not, however, content with a policy designed to maintain the peasantry in prosperity, which would be a tremendous task if tackled in the right way, but are even more ambitious in advocating a programme of land-settlement.

It is clear that a policy of large-scale land-settlement, at a time when thousands of peasants have only been rescued from their creditors by a debts moratorium, is doomed to failure. Under the projected scheme for the conversion of agricultural debts, many debtors may be compelled to give up part of their holdings. In this way the Government will obtain land for settlement purposes. The actual amount of land which is likely to be obtained in this way is not known and will depend on the extent to which the big landowners can exert pressure on the Government. Each family settled is likely to cost the State initially about 20,000 Rm., though this may be considerably reduced if land is cheaply available, as it would be if many large and hopelessly indebted estates were brought under the hammer. It is evident that in such extremely unfavourable economic conditions only persons with agricultural experience, energy and considerable ability can be settled with any chance of success. The settlement of industrial unemployed on the land is quite impracticable.

ARTHUR WYNN

Berlin, July 1933.

Senior's Lectures on Monetary Problems

Nassau William Senior's famous lectures on money and international trade have been newly issued by the London School of Economics and Political Science in their series of reprints.[1] On re-reading these classic treatises one is led to the conclusion that the practical application of economic reasoning seems to meet with very great difficulties. We are living in a world where trade barriers become more and more insurmountable. In defending the system of protection and prohibition, every day the same arguments are heard again which Senior and his fellow-economists have refuted and which Ricardo had already refuted years before. Why could this acute criticism of the Mercantile Theory of Wealth not succeed in convincing public opinion? Is there a weak point in the demonstration of the futility of the protection doctrine?

The foremost argument in the protectionist's reasoning to-day is again, as in the days of the Mercantile Theory, the monetary standpoint. Restriction of imports is said to be indispensable for the maintenance of a country's monetary equilibrium. It is true, one no longer speaks of the danger of losing the circulating stock of coined precious metals to foreign countries. But the only reason for this is the fact that practically no country maintains to-day an effective circulation of gold coins as most of them did till the outbreak of the War. The modern protectionist insists rather upon the necessity to secure the exchange ratio between the national and the foreign currency. What he does not wish to admit is that the exchange ratio does not ultimately depend on the balance of payments and that there is no danger of its being impaired so long as there is no over-issue of notes at home.

The question to be answered to-day is exactly the same as is expounded in Senior's lectures on the Transmission of the Precious Metals from Country to Country. The difference lies only in the formulation, not in the substance. The problem is whether there is an automatic readjustment of the balance of payments or whether

[1] *Nassau W. Senior:*

1. Three Lectures on the Transmission of the Precious Metals from Country to Country and the Mercantile Theory of Wealth.
2. Three Lectures on the Value of Money.
3. Three Lectures on the Cost of Obtaining Money and on some Effects of Private and Government Paper Money.

Numbers 3, 4, 5 in Series of Reprints of Scarce Tracts in Economic and Political Science (London School of Economics and Political Science).

Government is bound to interfere lest disastrous consequences follow. The chain of reasoning by which Senior proves that governmental interference is superfluous for this purpose considers a state of things where imports and exports of commodities dominate international business relations. For the present situation it seems necessary to keep in view the importance of credits, and accordingly to lay stress not only on the prices of commodities but also on the rates of interest. This, of course, does not in any way alter the essence of the problem, but it does seriously affect the political and ethical aspect of the question.

Considerations of this nature play in the eyes of public opinion a bigger rôle than is generally supposed. In discussing the problem of trade restrictions primarily with reference to the prices of goods, one imagines a selfish producer who demands higher prices from the poor consumer. In this case sympathy is on the side of the consumer. But in regard to rates of interest sympathy is given to the lender. Whereas in the question of commodity prices public opinion splits into two parties so that against the friends of higher prices stand always friends of lower prices, in the problem of interest there is but one opinion, *i.e.* in favour of low interest. As the matter of controversy seems to lie in the dilemma whether to maintain at home a lower rate of discount at the cost of import restrictions or to let the price of money rise under free trade, the scale goes down in favour of import restrictions. There is in every country a considerable opposition against import duties which one tries to justify by the necessity of raising the home price level in favour of home production. The opposition is very weak when import duties are apologised for by the expediency of maintaining a low rate of interest.

There is no doubt that in countries where capital is very abundant the rate of interest would be much lower were there not opportunities of exporting capital to countries with a higher rate of interest. Had the United Kingdom or had France in the fifty or sixty years preceding the War not invested a large amount of money abroad, the money rate at London and Paris would have been much lower than it actually was. If at this time someone in England had demanded a restriction of foreign investments from the labour point of view, as the Liberal Industrial Report did after the War, it would have been intelligible at least from the point of view of a short-sighted class policy. But the strange thing was that at this time, not the capital exporting countries, but the capital importing countries complained more

about the consequences of the international capital movements, assuming that it must lead to higher interest, whereas its effect for them was the contrary. Strange to say, in the 'seventies of the nineteenth century in Austria the theory was evolved that the Austrian paper currency isolated the country from the solidarity of international money markets and so enabled the Bank of Issue to expand credit and maintain a comparatively low rate of interest without any disadvantages. This false theory was duly refuted by Wilhelm Luccam, the then manager of the Austrian Central Bank. But nevertheless it survived in Austria and had from year to year more success in the whole of Europe, especially in Germany, and even in America.

When people to-day generally assert that things have so radically changed since the time in which the classical theory of money and foreign exchanges was expounded, that one cannot apply their results to modern conditions, they unfortunately do not give any proof. It is totally wrong to pretend that raising the rate of discount would not have any effect to-day on the flow of gold and on the exchange rate, or an insufficient effect. There is no proof that discount policy of the old type is inapplicable to the present situation. The fact is that the ruling parties prefer the consequences of a depreciation of the national currency to the consequences resulting from non-interference in the market's money rate.

Let us consider separately the different recent cases of departure from the old gold parity. There was the case of England in 1931. Britain had to choose between a policy of defending the gold standard by raising the rate of discount, as has been done over and over again, and a policy of depreciation. She decided for the second because it made it possible to maintain unchanged the British level of prices and wages in the midst of a world of falling gold prices. Opinions differ on the soundness of this policy, and there is no doubt that it was very unsound from the point of view of Senior's ideas. But there was nothing in the situation which could not be explained from the point of view of Senior's theoretical teaching. It is true that his decision would have been very different from that of Great Britain's rulers in 1931. He would have believed that nominal wages had to fall *pari passu* with prices, and that there was nothing alarming in a situation where the prices of raw materials which England buys fall more rapidly than the prices of the manufactures which England exports. But Senior in discussing these problems with Mr. Norman and Mr. Keynes would at the end of the conversation

have said: "I see, gentlemen, that you follow other aims." But he would have had no reason to say: "You have to cope with a situation which my theory does not cover."

Yet in another respect a radical change in the financial situation has been accomplished. In the modern banking system the short-term debts play a dominating rôle. The banks of the lending countries have lent enormous sums to the banks of the borrowing countries. Literally they had the right to withdraw this money at short notice. But in fact such withdrawals could not be effected at once, as the borrowing banks had lent this money to business which could not pay it back at all or at least only after some delay. The international credit relations were based on a fallacious assumption of liquidity. The moment the lenders tried to exert their right of withdrawal there were only two alternatives: open declaration of bankruptcy by the debtor banks or intervention of the Government which suspended payments to foreign countries. The introduction of foreign exchange control in some continental countries in the summer of 1931 was a makeshift for a formal moratorium.

Banking to-day is not sounder when considered from the point of view of the home situation. Deposits subject to cheques and saving deposits are two entirely different things. The saver wishes to entrust his money for a longer period; he wishes to get interest. The bank which receives his money has to lend it to business. A withdrawal of the money entrusted to it by the saver can only take place in the same measure as the bank is able to get back the money it has lent. As the total amount of the saving deposits is working in the country's business, a total withdrawal is not possible. The individual saver can get back his money from the bank, but not all savers at the same time. That does not mean that banking is unsound. It does not become unsound until the banks explicitly or tacitly promise what they cannot perform: *to pay back the savings at call or at short notice.*

The deposits subject to cheques have a different purpose. They are the business man's cash like coins and bank-notes. The depositor intends to dispose of them day by day. He does not demand interest, or at least he would entrust the money to the bank even without interest. The bank, to be sure, could not earn anything if it were to hold the whole amount of these deposits available. It has to lend the money at short notice to business. If all depositors simultaneously were to ask their deposits back, it could not meet the demand. This fact that a bank which issues

notes or receives deposits subject to cheque cannot hold the total amount corresponding to the notes in circulation and to the deposits in its vaults, and therefore can never redeem at once the total amount of its liabilities of this kind, is the knotty problem of banking policy. It is the consideration of this difficulty which has to govern the credit policy of the banks which issue notes or receive deposits subject to cheque. It is this consideration that led to the legislation which limits the issue of bank-notes and imposes on the Central Banks the retention of a reserve fund of a certain magnitude.

But the case of the saving deposits is different. Since the saver does not need the deposited sum at call or short notice it is not necessary that the saving banks and the other banks which take over such deposits should promise repayment at call or at short notice. Nevertheless, this is what they did. And so they became exposed to the dangers of a panic. They would not have run this danger, if they had accepted the saving deposits only on condition that withdrawal must be notified some months ahead.

Public opinion assumes that the real danger to maintenance of monetary stability lies in the flight of capital. This assumption is not correct. Capital invested in real estate or in industrial plants or in shares of companies holding property of this nature cannot fly. You can sell such property and leave the country with the proceeds. But—unless there is no expansion of credit —the buyer simply replaces you. If he is a foreigner, then the capital flight of the native is compensated by the immigration of capital from abroad. If the buyer is another native, then he can provide the means—when additional credit is not granted by credit expansion—merely by selling his property, and so the case with him is the same. One person or another can withdraw his capital from a country, but this can never be a mass movement. There is only one apparent exception, *i.e.* the saving deposit which can be withdrawn from the bank at once or at short notice. When the saving deposits are subject to instant withdrawal and the bank of issue renders the immediate withdrawal possible by advancing credits for these savings to be withdrawn, then credit expansion and inflation cause the exchange ratio to rise. It is obvious that not the flight of capital but the credit expansion in favour of the saving banks is the root of the evil.

The pith of the problem lies in the deposit policy. Banks which promise no more than they can fulfil without extraordinary assistance from the Central Bank, never jeopardise the stability

of the country's currency. And even the other banks who have been imprudent enough to assume liabilities which they cannot meet are only a danger when the Central Bank tries to assist them. If the Central Bank were to leave them to their fate, their peculiar embarrassment would not have any effect on the foreign exchanges. That the additional issue of great amounts of bank-notes for the sake of the repayment of the total amount or of a great portion of the country's saving deposits makes the foreign exchange go up is easy to understand. It is not simply the wish of the capitalists to fly with their capital, but the expansion of the circulation, that imperils monetary stability.

Had the Central Banks not believed that it was their duty to cover up the consequences of the deposit banks' wrong policy they would have not only maintained without artificial and, at the same time, ineffective measures the stability of the exchange ratio, but would have forced the deposit banks to make agreements with their clients concerning the payments due. By such agreements they would have adjusted the payments due to the payments receivable. The Standstill Agreements would have been made definitively and for all debts, foreign and domestic.

To sum up, we are not entitled to say that Senior in his writings on money and monetary subjects had to deal with problems other than those which we have to-day. The task of monetary and banking theory is in principle not different to-day from Senior's time. Different, of course, are the conditions of our banking organisation, the institutions, and the considerations which politicians keep in mind. Different are the data, but not the mechanism of exchange and social co-operation. All the questions of principles which Senior had to face are identical with those which our theory has to answer. We may differ from Senior in regard to the treatment of the fundamental items of value and exchange, but we have still the same problems to solve. And notwithstanding all changes in economic thought and reasoning, in social conditions and political aspects, in banking organisation and in business life generally, no one can read these old pamphlets without profit.

L. MISES

Vienna.

DECREASING COSTS : A REPLY TO MR. HARROD

MR. HARROD,[1] Mr. Shove[2] and myself[3] are in complete agreement upon the fact that the level of profits which is just not great enough to attract new firms into an industry may often be considerably higher than the level of profits which is just sufficiently great to prevent existing firms from leaving the industry. But Mr. Harrod appears to suppose that this state of affairs is in some way necessarily connected with imperfection of the market.

Reflection will show that there is no necessary connection between the two. Competition may be perfect (in the sense that the elasticity of demand for the individual firm is infinite) and yet there may be considerable difficulty of entry into the trade, so that there is a considerable gap between the upper and lower level of profits. On the other hand, the market may be highly imperfect (for instance, on account of transport costs), and yet there may be free entry into the trade and complete adaptability of factors of production, so that the two levels of profits coincide.

It is impossible to disagree with Mr. Harrod when he says that "in order to use an apparatus of cost curves effectively and to give any meaning to the expression, decreasing costs, it is necessary to specify a single rate of profit." But, as often happens in economic analysis, it is necessary to specify the rate appropriate to the problem for which the apparatus is required. When we are considering an industry expanding in response to increases in demand (whether competition is perfect or not), it is useful to describe as "normal profits" the upper level of profits, beyond which the number of firms in the industry would increase. I used the phrase "normal profits" in this sense in the article which Mr. Harrod is criticising. When we are considering an industry which is tending to contract in face of a decline in demand, the phrase "normal profits" may be used to describe the lower level of profits, below which firms would disappear from the industry. When demand is varying in such a way that profits fluctuate between these two levels, the number of firms in the industry is fixed, so that average, as opposed to marginal, cost curves have no place in our analytical apparatus and the conception of "normal profits" is not required.

Mr. Harrod's definition of *the* normal rate of profits (which he holds to be equally appropriate to all these problems) is extremely obscure. He appears to overlook the fact that it is

[1] ECONOMIC JOURNAL, June 1933, p. 337. [2] *Ibid.*, March 1933, p. 119.
[3] *Ibid.*, March 1933, p. 125.

impossible to deduce average cost from marginal cost because aggregate cost may contain a fixed element which is independent of output.[1]

Moreover, Mr. Harrod fails to recommend his definition by the use to which he puts it. He asserts that when "the particular demand curve, as it shifts its position, retains a constant elasticity for each value of y . . . the supply price curve and the cost curve constructed in the manner suggested above both have a negative gradient, both have a positive gradient or are both horizontal." Mr. Harrod has unfortunately mistaken my "hint." The proposition to which he appears to be referring is that, *when the number of firms is fixed,* supply price will rise, fall, or remain constant, in the conditions of demand which he describes, according as *marginal* cost is rising, falling, or constant (provided that cost to the firm is independent of the output of the industry).[2]

To establish this proposition it is unnecessary to include an average cost curve in our apparatus, and if Mr. Harrod was only interested in the analysis of the supply curve of a fixed number of firms he need not have been at such pains to find a peculiar definition of normal profits, since every definition of normal profits is equally irrelevant to the problem.

JOAN ROBINSON

FOREIGN CAPITAL IN INDIA—A REJOINDER

IN the March issue of the JOURNAL Mr. V. K. R. V. Rao has made two criticisms on my estimates of foreign capital invested in India. With each of these I propose briefly to deal.

In the first place, my calculation purports to be an estimate of the amount of foreign capital invested in India, and this, I estimate, is of the order of £500,000,000. The discrepancy between Mr. Birla's estimate of £1,000,000,000 and my own is not due, as Mr. Rao alleges, to the ambiguity in the phrase "foreign liability," but to exaggeration on the part of Mr. Birla, especially in regard to the capital of companies operating in India but registered elsewhere, and to that of companies registered in India, the capital of which is held abroad. Mr. Rao's estimate of foreign capital investments is £600,000,000. The statistical data are often inadequate, and in estimating the amount of privately invested capital in India there is, of course, a large

[1] May I suggest to Mr. Harrod that he should consider how his definition of normal profits "affects the theory of equilibrium" under *perfect* competition?

[2] The analysis which I was endeavouring to explain to Mr. Harrod is set out at length in Chapter 4 of my *Economics of Imperfect Competition.*

element of conjecture, or more or less intelligent guessing, as the case may be. Sir Robert Kindersley's recent estimates in the June ECONOMIC JOURNAL are of much interest in connexion with my estimate. He puts British capital invested in India *and Ceylon*—he does not show India's share separately—at £458,000,000, made up of £261,000,000 as Governmental and municipal, £90,000,000 in railways, £12,000,000 in public utilities, £14,000,000 in mines and £81,000,000 as miscellaneous. His figures include the bonds and stocks of Government and municipalities, the interest payments on which are made in London; securities of all British companies classified in the Stock Exchange Intelligence, and, although working in India and Ceylon, are registered in the United Kingdom; and securities of foreign and colonial companies registered and operating in India and Ceylon in which dealings are permitted on the Stock Exchanges of the United Kingdom. All things considered, I do not think that the estimate of £500,000,000 can be taken as an under-estimate as Mr. Rao believes. On page 171 of the March issue of the JOURNAL, under item "*e*," Mr. Rao states that no allowance has been made for private capital in India, but a reference to page 573 of the September issue will show that an allowance of £19,000,000 has been made, as against £15,000,000 by Mr. Rao. Mr. Rao omits to take into account Indians' increasing share in companies registered out of India, notably in the jute industry.

Secondly, Mr. Rao makes a somewhat astonishing slip when, on page 172, he expresses his belief that my figure of 3·8 per cent. was based on a figure as far back as that of Sir George Paish of 1907. The figure was taken from the invaluable Statistical Summary of the Bank of England for August 1932. It is the total interest paid expressed as a percentage of the amount of capital outstanding, and refers to Government and municipal loans. For both 1929 and 1930 the percentage is 3·8. In 1929 there was, of course, only one long-term Government sterling loan floated, and this gave a redemption yield of approximately 5 per cent. The structure of Indian public debt has been greatly improved by the conversion of short- into long-term debt, and the basis has been reduced from more than $5\frac{3}{4}$ per cent. to about $3\frac{3}{4}$ per cent. This is not the whole story. Nearly 80 per cent. of India's public debt is represented by interest-yielding assets. The gross interest on ordinary public debt in India and in England is about £33,000,000, or 4·3 per cent., but, as most of this is recoverable from railways, irrigation, the Post Office, and the Provincial Loans Fund, the net charge to the Budget

is only a shade over £3,250,000. The main thesis of my rejoinder to Mr. Birla, published in the December issue of the JOURNAL, has been greatly reinforced by events since it was written. Budget balance has been achieved, capital expenditure has, thanks largely to Sir George Schuster, India's Finance Minister, been kept well under control, and India enjoys the distinction of maintaining, in addition to a budget balanced without any trick devices, a sinking fund for debt redemption which has not been raided. Is there any other country in the world that can at present equal this record? I think not.

G. FINDLAY SHIRRAS

ON A FORGOTTEN QUOTATION ABOUT CANTILLON'S LIFE

I THINK it will interest the readers of THE ECONOMIC JOURNAL to be acquainted with a mention of the name of Richard Cantillon which I have happened recently to come across and which, exclusive of course of the printed documents in the law-suits between the banker and his clients—is, as far as I know, the first mention made of him in a book relating to economics. At least, it is not recorded in the learned articles of Jevons, Higgs and Hayek.

The occasion of this mention was the famous Order (*Arrêt*) of January 26, 1721, in virtue of which all public securities current during the "System" were to be submitted within two months to an accurate examination by special commissioners for the purpose of cancelling or reducing or maintaining them. A *visa*, or stamp, on the security was declared essential to its validity. On September 14, 1721, a new order compelled all public notaries to send to the commissioners a sworn extract of all transactions made through their instrumentality between July 1, 1719, and December 31, 1720. The commissioners having been thus enabled to draw up an account of the fortunes acquired during the "System," an extraordinary tax of 187,893,661 livres was levied on them by an order of September 15, 1722. A list of so-called "Mississipiens" or millionaire shareholders of the Mississippi and other mushroom companies was drawn up. Mississipiens, called also "hommes nouveaux," were divided into four classes, the first of which included forty-six (not thirty-eight, as is said by Levasseur) names; the highest assessment, that of a Dame Chaumont, being of 80 million livres, and the lowest of 15 million, besides nine persons whose recently acquired fortune was not disclosed, but who, notwithstanding, were taxed for no less than 1,302,000

livres. The yield of the tax ought to have been 117,650,211 livres for this first class, 58,642,576 for the second, 7,109,336 for the third, and 4,491,538 for the fourth; a total of 187,893,661 livres. What the net true yield was is not known; probably less than the estimate, as many speculators managed to fly to foreign countries with their acquired riches, or to buy with various corrupt means total or partial immunity. The story is told at length in two books, *Histoire du système des finances sous la minorité de Louis XV pendant les années* 1719 *and* 1720 (six tomes, La Haye, ches Pierre de Hondt, 1739), and *Histoire générale et particulière du Visa fait en France pour la réduction et l'extinction de tous les papiers royaux et des actions de la Compagnie des Indes, que le Système des Finances avoit enfantez* (four tomes, La Haye, ches F. H. Scheurleer, 1743), par Du Hautchamp. Mr. Levasseur writes that Du Hautchamp's two books are "the most precious source known" on the System (E. Levasseur, *Recherches historiques sur le système de Law*, 1854, p. xi). Du Hautchamp gives us indeed many interesting and lively details on the Law episode. Among others, he tells us that the Mississipiens hoped that the jolly bonfire, which on October 17, 1722, burned all the deeds, registers, and other papers of the great liquidation of the "System," had destroyed also the list of taxpayers' of the extraordinary levy of 187 million livres. But the list was preserved, and Du Hautchamp was able to publish it at the end of the second volume of the *Histoire du Visa*. I do not know if the original list is preserved in the public archives; but the bookseller who sold me a copy of the book assures me that the *Histoire du Visa* became very scarce on account of this very list. The "hommes nouveaux" whose names were put on the taxpayers' list (there are 243 in the four classes, and fifty-nine more are added by Du Hautchamp as notorious "Mississipiens" who managed not to be included) did not like the publicity, and bought and destroyed the volumes. The inference is the more plausible as Du Hautchamp adds to names and figures of fortunes and taxes observations of its own, sometimes disagreeable.

Unfortunately, no positive observation is added to the name of Cantillon, contained in the first class of profiteers by the Mississippi mania. Here is the quotation, taken from page 170 of the second volume of the *Histoire* (1743).

Noms des Actionnaires.	Millions qu'on leur attribuoit en Papiers du Système.	Taxes du Rôle.	Remarques.
Richard Cantillon	20,000,000 liv.	2,400,000 liv.	Inconnu

Cantillon, who was mostly absent from Paris between 1720 and 1726, did not care, or was not able to search for protection among the aristocracy, and his noble clients were, moreover, too angry with him to allow his name to be dropped from the larger provisional list, as happened with several other big financiers (Du Hautchamp, *Histoire du Visa*, II, 11 and 196–197). The estimate of the fortune acquired by Cantillon was, as for other profiteers, largely a matter of guess, as it was based on the examination of deeds or transactions registered in public notaries' offices or in the India Company's books and other public sources, supplemented by a roused public opinion.

May I add to the present too long note on a too short quotation that some relevancy can, however, be attached perhaps to the "unknown" characterisation of the great economist? We are told by the Counsel for Cantillon in the legal suit brought against him by the brothers Carol that Cantillon left business in 1719; and from letters exchanged between Cantillon and his clients and partners it appears that he was a "bear" of India Stocks, and remitted large sums to England and Amsterdam (see Higgs's *Appendix* to the Reprint of the Essay, p. 368). Cantillon was clearly one of those clever men whom Du Hautchamp, who was friendly to the System, calls "réalisateurs"; but he always kept himself in the background, never coming to the front, so as to be counted along with those small men suddenly risen to prodigious fortunes whose names had acquired great notoriety in Paris. Du Hautchamp, who likes to relate deeds and words of almost every noted "Mississipien," does not mention Cantillon except in the taxpayers' list; and here he is bound to confess that he knows nothing of the man, notwithstanding the fact that his was one of the biggest fortunes discovered by the royal commissioners. Surely Cantillon did not invest the proceeds of his Paris speculations in houses and lands in France, because he would have been obliged to disgorge them. The house of which he appears possessed in Paris at his death (Higgs, *loc. cit.*, p. 376) was probably his property already in August 1719 (*ibid.*, p. 366), *i.e.* before the visa period. It would be interesting to know if Cantillon paid his 2,400,000 livres tax; but Du Hautchamp, who is loquacious about tax-defaults of other "Mississipiens," who took care, as Cantillon did too, not to return at once to France from foreign refuges, leaves us in the dark on this point. Researches in the archives of the Contrôle des Finances and of the Chambre des Comptes of Paris may perhaps supplement the hint which Du Hautchamp's quotation gives us as to the origin of Cantillon's

fortune, and provide further information as to the levy made or attempted on it by the French taxing authorities.

LUIGI EINAUDI

CURRENT TOPICS

As recorded at the commencement of this issue, the Annual Meeting of the Society was held at the London School of Economics on May 25. It was then announced that the publication of the definitive edition of the Writings of David Ricardo under the editorship of Dr. Piero Sraffa is expected in the first half of next year. The English version of Wicksell's *Geldzins und Güterpreise*, translated by Mr. R. F. Kahn, with an introduction by Prof. Ohlin, is also nearing completion.

HIS MAJESTY THE KING, our Royal Patron, accompanied by the Queen, laid the foundation stone of the new buildings of the University of London on the 26th of June. The buildings when completed will provide the University with large and dignified headquarters and will add a striking new architectural feature on the north of the British Museum.

The occasion was celebrated by festivities extending to three days, and invitations were accepted by over three hundred representatives of British and foreign Universities and learned Societies, including the Royal Economic Society.

IN Mr. Robertson's article above on "Saving and Hoarding," p. 407, § 9, l. 5, for $M_{1b}' = M_b' - X$, read $M_{1b}' = M_b' - X + X$.

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCVI, Part III. *British Railways Since the War.* K. G. FENELON. *Public Expenditure and Trade Depression.* R. G. HAWTREY.

Economica.

MAY, 1933. *The Trend of Economic Thinking.* F. A. VON HAYEK. *The National Income of the U.K. in* 1924. A. L. BOWLEY. *A Note on Mr. Hicks' Distribution Formula.* A. C. PIGOU. *The Constitutional Importance of the "Commissioners for Wool" of* 1689. R. M. LEES. *The Marginal Utility of Money and its Application.* R. C. D. ALLEN.

New Britain.

JANUARY, 1933. *The Emergent Order.* J. HODGSON. *The Scientists' Outlook.* C. S. WILLIAMSON. *The Physical Foundations of Civilisation.* F. SODDY. *Publicity and Credit.* C. H. DOUGLAS. *Ananias; his Present Occupations and Enterprises.* R. W. POSTGATE. *The Cultural Integrity of the State.* S. G. HOBSON.

Quarterly Journal of Economics.

MAY, 1933. *The "Nature and Significance of Economic Science," in Recent Discussion.* R. W. SOUTER. *Large-scale Enterprise in the Light of Income-tax Returns.* W. L. CRUM. *Relation of Call Money Rates to Stock-market Speculation.* W. J. EITEMAN. *One Year of the Reconstruction Finance Corporation.* J. F. EBERSOLE. *The Use of Indifference Curves in the Analysis of Foreign Trade.* W. W. LEONTIEF.

Harvard Review of Economic Statistics.

MAY, 1933. *Review of the First Quarter of* 1933. W. L. CRUM and J. B. HUBBARD. *A Measure of the Severity of Depressions.* A. R. ECKLER. *The Gold Percentage.* H. R. BOWSER.

Journal of Political Economy.

APRIL, 1933. *Ernst Freud* (1864–1932). A. H. KENT. *The Expansion of Bank Credit.* J. W. ANGELL and K. F. FICEK. *Recent Social Trends.* P. A. SOROKIN and W. F. OGBURN. *Werner Sombart and the "Natural Science Method" in Economics.* L. ROGIN. *Holtrop's Formula for the "Coefficient of Differentiation" and Related Concepts.* A. W. MARGET.

JUNE, 1933. *Railway Rates and Rate-making in France since* 1921. H. E. DOUGALL. *A Quantitative Theory of Industrial Fluctuations caused by the Capitalistic Technique of Production.* E. THEISS. *Expansion Possibilities of the Federal Reserve Banking System.* S. I. POSNER. *Economic History and the Economist.* M. S. HANDMAN. *Federal Reserve Policy.* H. L. REED and C. O. HARDY.

The American Economic Review.

JUNE, 1933. *Economic Phases of the Wholesale Market.* N. H. ENGLE. *Basis of Economic Statesmanship.* C. E. AYRES. *Social Aspects of Commercial Banking Theory.* F. A. BRADFORD. *Taxation and Minimum of Subsistence.* A. G. RUEHLER. *Expansion of Bank Credit.* W. A. NEISWANGER. *Mr. Keynes's Control Scheme.* E. C. SIMMONS.

Wheat Studies.

(Food Research Institute, Stanford.)

JULY, 1933. *Britain's New Wheat Policy in Perspective.* The new measures are both ingenious and moderate. They are directed primarily towards farm relief, not self-sufficiency even within the British Empire. The new wheat policy is, however, the " spear-head " of a re-oriented policy towards British agriculture, in which animal husbandry strongly predominates.

International Labour Review.

MAY, 1933. *Unemployment Benefits, and Measures for Occupying the Unemployed in Great Britain.* H. FUSS and D. C. TAIT. *The Economic Depression and the Employment of Women. II.* M. THIBERT. *The Mexican Federal Labour Code.* M. P. TRONCOSO.

JUNE, 1933. *International Labour Conventions as a Means of Assuring Identity of Treatment for National and Foreign Workers on a Basis of Reciprocity.* J. SECRÉTAN. *Immigration in France.* G. MAUCO. *The Size of Industrial and Commercial Establishments in Different Countries. The Labour Question in Swedish Agriculture.*

Population.

JUNE, 1933 (Vol. I, No. 1). *A Survey of the Problems of Population.* THE EDITOR. *The Urgency of Population Study.* G. H. L. F. PITT-RIVERS. *An Outline of Population History.* A. M. CARR-SAUNDERS. *A Survey of Data respecting Animal Populations.* J. HUXLEY. *The Biological Aspects of Migration.* F. A. E. CREW. *The Situation in South and East Asia.* C. CLOSE. *La population belge.* U. FALLON.

Révue d'Économie Politique.

MARCH, 1933. *La France devant la Crise des Échanges Internationaux.* Treated in various aspects by G. PIROU, P. JERAMEC, A. AFTALION, J. WEILLER, W. OUALID, P. JOLLY, W. WITTICH, M. AUGE-LARIBÉ, L. BROCARD, J. RUEFF, J. PROIX, R. WOLFF, H. TRUCHY, E. ALLIX, R. PICARD.

Journal des Économistes.

MAY, 1933. *Les entretiens de Washington et la chute du dollar.* E. PAYEN. *L'Europe Centrale.* R. J. PIERRE. *Les Emprunts Internationaux et la crise.* M. CARSOW.

JUNE, 1933. *Le défense du débiteur en Tchecoslovaquie.* S. BORODAEVSKY.

Archiv für Sozialwissenschaft und Sozialpolitik.

MAY, 1933. *Wicksells Theorie des Zusammenhangs zwischen Zinssatz und Geldwertschwankungen.* J. PEDERSEN. An analysis of the cumulative process resulting from a divergence between the market and natural rates must be dynamic. Wicksell's conclusion that the Banks can control the price-level by their interest policy is incorrect in so far as it assumes a perfect elasticity of interest rates and therefore even the possibility of the Banks' enforcing a negative rate. The author suggests the discrepancy between "natural" and market wages as an alternative explanation of movements in the price-level, and concludes that a better criterion for policy would thus be afforded. *Soziale Gliederung der deutschen Arbeitnehmer.* T. GEIGER. *Gedanken zur Krisenbekämpfung.* P. A. KOLLER. The author reviews Milhaud's project for facilitating international trade by international *bons d'achat* which would obviate the difficulties of crude barter and yet avoid currency complications. *Die Zahlungsbilanz Bulgariens 1924–31.* S. SAGOROFF und A. TSCHAKALOFF. *Ein System der autonomen Finanzwissenschaft.* H. JECHT.

JUNE, 1933. *Über die philosophischen Grundlagen des wirtschaftswissenschaftlichen Arbeitsbegriff.* H. MARCUSE. *Die Staatshaushalt in der Depression.* H. RITSCHL. Our economy is composed of a static communal and dynamic market economy. After an analysis of public undertakings and public expenditure and receipts in Germany during the depression, the author concludes that a considerable extension of state and public activities would minimise the effects of the trade cycle and that a long-period plan of development is necessary. *Die tschechoslowakische Ausfuhr in der Krise.* F. VALINA. Czecho-Slovakia should turn westwards for her markets and enter into tariff agreements with Germany and Austria to find new outlets for her exports. *Die dialektische Erfassung des Rechts im sozialen Ganzen.* K. WOLFF.

Jahrbücher für Nationalökonomie und Statistik.

MAY, 1933. *Die "Allgemeine" und die "Spezielle" statistische Methodenlehre.* F. ŽIŽEK. Theoretical statistics is general and formal in character and provides a system of general rules of statistical demonstration, whilst special statistics is concerned with arranging its material and applying the appropriate methods. *Beitrag zum Kreditproblem.* H. BEINHORN. *Finanzwirtschaft, Fiscalität und Zweckbesteuerung.* H. FICK. *Spannungsverhältnisse im Betreibsrätesystem.* H. MÖNCH.

JUNE, 1933. *Erkenntnistheoretische Kritik der Osterreichischen Wertlehre.* K. ENGLIŠ. After a brief exposition of the Austrian theory of value, the following criticisms are advanced. The Austrians lay down as universal laws which, being dependent on empirical psychology, can never be more than general, and thus do not succeed in separating the logical from the psychological. The theory of alternative costs does not distinguish between situations in which we do forego something to acquire something else and those in which there is acquisition without any foregoing. But the main criticism is that the Austrian theory of value is inapplicable to a "state economy." Finally, wants are not causally but

teleologically related with reference to a central end. *Die Bürgschaften der öffentlichen Hand in rechtlicher, finanzieller und volkswirtschaftlicher Beziehung.* K. v. DEYBECK.

JULY, 1933. *Der Jugendbegriff der Nation.* R. MICHELS. *Weltwirtschaftskrise und Kapitalismus.* W. WEDDIGEN. The causes, both real and monetary, of the present depression are not inherent in capitalism, but a return to a non-interventionist economy is impossible and reforms based on a synthesis of economic democracy and the corporative state retaining initiative are advocated. *Das Ende des Automatik des Marktmechanismus.* O. CONRAD. Pre-war depressions tended to be cured of themselves, but since the policy of Government intervention and price and wage maintenance has been adopted, the remedy is either to revert to a free market, or to have a socialist planned economy or best a planned administration based on communal interest and having the power to lower wages and prices simultaneously. *Wandlungen in des Lebensdauer und dem Altersaufbau der Bevölkerung.* P. MOMBERT. The author describes the changes in the average expectation of life and the influence of the decline in birth-rate on the distribution of age-groups, and concludes that the economic effects of the increase in average expectation and of the decline in the birth-rate need not be unfavourable.

Schmollers Jahrbuch.

APRIL, 1933. *Der Kapitalismus als Ausdruck einer Entwicklungsstufe.* K. PINTSCHOVIUS. Capitalism is neither a philosophical abstraction deduced from isolated sociological phenomena nor yet a syncretism of various actual facets, but rather an inevitable stage in the evolution of social concepts. *Kapitalmangel und Steuerpolitik.* H. ZASSENHAUS. Shortage of capital is defined as shortage of means of payment for financing existing and new enterprises. The effects of different taxes on income, saving, and accumulation are analysed, and it is concluded that the taxes most detrimental to the provision of capital are the inheritance, property, and income tax in that order. Post-war taxation policy in Germany was harmful in this respect. *Wirtschaft und Politik in "reinen Kapitalismus."* R. BEHRENDT. In contrast to political behaviour, economic behaviour is rational, and there is no necessary connection between the two. *Noch Einmal: die Abwanderung vom Lande und das Goltzsche Gesetz.* P. QUANTE. *Die Allgemeine Preisbildung,* 1890–1913. G. TINTNER.

JUNE, 1933. *Ökonomische Theorie und Liberalismus.* G. MACKENROTH. Economic analysis proceeds on abstract assumptions concerning the institutional organisation of society; previous economists attempted to make Liberalism the basis of "economic rationality," but the realisation of the relativity of values renders it possible to bring their premises to light. *Wirtschaft und Politik in der "kapitalistischen Wirklichkeit."* R. BEHRENDT. *Die Währungs- und-Kreditkrise.* F. MACHLUP. An account of the crisis in credit and currency and of the measures taken to prevent flight of capital and depreciation of currency and to protect the balance of trade. The view that deflation is the cause of the depression is attacked, and it is concluded that the measures so far taken to restore confidence have rather diminished it and accentuated the depression.

Die Wechsellagenpolitik der Federal-Reserve Banken. K. WAIBL. The aims, methods, and effects of Federal Reserve policy since 1920 are examined. From the beginning the belief that the American economic position is independent of that of other countries has exerted a decisive influence on monetary policy, and its dangers are not yet fully realised. *Die deutsche Arbeitsmarkt in der Krise.* W. WOYTINSKY. Grundlegung einer *neuer Staatswissenschaft.* FREIHERR v. BISSING.

Weltwirtschaftliches Archiv.

JULY, 1933. *Die Zerrüttung der Wertsphäre.* J. LESCURE. An investigation of the causes of the abnormal differences which have arisen between price-levels, home and foreign, import and export, goods and services. *Neutrales oder Wertstabiles Geld?* A. MAHR. Comparison of the operation of these policies is in favour of the latter on the whole and especially because it does not impede general economic growth, as the former does. *Der Einfluss der Devaluation auf das Preisniveau.* J. L. K. GIFFORD. The author has attempted to find whether there was an adjustment of the internal price-level to the world gold price-level in a number of countries on their returning to the gold standard after the last European war, namely, after the devaluations in Germany, France, Belgium, Austria, Hungary and Czechoslovakia, and the return to the old parity in Great Britain in 1925. By means of comparable wholesale prices index-numbers and the price quotations used, the food, clothing and miscellaneous group index-numbers of the cost of living indexes, and certain wage index-numbers, he discusses the amount of similarity of movement which may be expected between the different countries, and the possibility of divergences caused by the choice of a particular gold content. He examines the actual adjustment in some cases, making allowances for some disturbing forces which influence the relation of the price-levels and which hide the effect of the devaluation. He then classifies devaluations according to their effect in normal circumstances, and argues that a devaluation, neutral with regard to the balance of payment, is also neutral with respect to adjustment of the price-level, credit structure, production, distribution of income, and the interests of other nations, but that a devaluation introduced in abnormal circumstances cannot be neutral with regard to the interests of other countries which may be affected very seriously. He maintains that it is better for a Government to wait for the return of normal circumstances before it devaluates and then to choose a neutral devaluation. In view of the short duration of any direct export stimulus, the ease which other nations can combat it by retaliatory measures and the evil effects of such proceedings lead him to conclude that the policy of trying to stimulate exports by means of a devaluation and corresponding credit policy, possibly with a view to increasing gold reserves, is not likely to be in the interest of any country. *Diskontpolitik und Zahlungsbilanz.* A. VON MUHLENFELS. Criticises the mechanical theory of the operation of discount rates on the trade balance; its operation is full of friction and of looseness. It is concluded that the policy of the balance of payments should not be simply handed over to an autonomous bank of issue, but should be related to public purposes. *Die Bedeutung des Kredits in der*

heutigen Weltwirtschaft. R. LIEFMANN. The importance of long-term credit is much lessened by the probable transition from an expanding to a more stationary economy. *Der wertwirtschaftliche Austausch der Produktionsfaktoren.* P. MOMBERT. The disproportionality of the factors of production; the international balance of population. *Die wirtschaftlichen Grenzen der Pioniersiedlung.* J. B. CONDLIFFE. The author deduces from statistics of growth of population the areas in which pioneer settlement is proceeding most actively, and points out the check to settlement imposed by declines of prices and stoppage of capital exports. *Wandlungen der japanischen Devisen- und Zollpolitik.* T. YUMOTO. Post-war problems of tariff policy in relation to international agreements. *Die faschistische korporative Wirtschaftsordnung.* A. DAINELLI. Examines the distinction of the Corporative system from Liberalism and Socialism, and argues for it as a proper co-operation of the classes.

Giornale degli Economisti.

MARCH, 1933. *Aspetto tecnico ed economico attuale delle applicazioni chimiche.* L. CAMBI. *L'incidenza dell'imposta sull'oro-moneta.* A. G. CANINA. A discussion of the incidence of a tax on gold. *Note sul pagamento inglese agli Stati Uniti per il debito di guerra.* E. FOSSATI. *A proposito di alcuni appunti sul costo monetario dell'uomo.* G. PIETRA.

APRIL, 1933. *Sull'utilità di un "rapido" ammortamento del debito pubblico.* E. D'ALBERGO. *La finanza e le rivalutazioni monetarie nei "Grundlehren der Finanzwirtschaft" di De Viti De Marco."* PROFESSOR CABIATI in reviewing the German translation of Professor De Viti De Marco's well-known treatise on Public Finance, comments on Book V in the German text, which is new material not hitherto published, and which deals with public borrowing and with the issue of paper money. Professor Cabiati criticises the author's thesis that when a currency has been inflated its value should be restored to its original level—*i.e.* total revaluation —on the ground that when inflation has occurred, " and has lasted long enough to deform the preceding equilibrium, it is idle to hope that by forcing the value of money to its former level this equilibrium will be reconstituted in its previous form. The redistribution of wealth has altered the taxpayers; production has been modified; comparative costs are no longer what they used to be." Moreover, if one of the concomitants of inflation has been the creation of a vast public debt, it is essential that while this situation remains the volume of money in circulation should be kept proportionally large.

MAY, 1933. *La dinamica della popolazione secondo Francesco Ferrara.* C. ARENA. An account of the very modern views expressed in the middle of the nineteenth century by the great Italian economist, Ferrara, in regard to the problems of population and rent. *Sulla funzione monetaria dell'oro.* V. PORRI. It is suggested that gold, while continuing to preserve a special place in international trade, should cease to be used as a backing for note issues. The vital problem of the stabilisation of the price-level would thereby be rendered less difficult to solve. *Il nuovo catasto agrario.* P. ALBERTARIO.

La Riforma Sociale.

MAY–JUNE, 1933. *La complementarità: prima delle tre tappe del progresso della teoria economica pura.* P. N. ROSENSTEIN-RODAN. A lengthy article (52 pages) by one of the editors of the *Zeitschrift für Nationalökonomie* dealing with the fundamental notion of utility regarded from the standpoint of the importance of the reciprocal interdependence of utility. The article has a very full bibliography and is an interesting contribution to the recent history and development of this branch of economic doctrine. *Una vittima della politica: il dollaro.* A. CABIATI. A vigorous criticism of the monetary policy pursued by the United States in recent years, and especially since 1929. *Fondo disponibile di risparmio e lavori pubblici.* A discussion between PROFESSOR C. PAGNI and PROFESSOR L. EINAUDI of the value of public works as a remedy for the economic crisis. *La Banca d'Italia nel* 1932. V. PORRI. *I problemi del catasto.* G. MEDICI.

Scientia.

MAY, 1933. *Méthodes nouvelles pour étudier le mouvement de la population.* A. LANDRY.

JULY, 1933. *La previsione economica.* F. VIRGILII.

Annali di Statistica e di Economia.

Vol. I, No. 1. *Considerazioni intorno a rapporti tra tonnellaggio marittimo mondiale e commercio estero.* V. MORETTI. *I conti bancari della Banca dei regolamenti internazionali.* A. BREGLIA. *Il Gold-Exchange Standard in India.* B. N. SINHA.

Ekonomisk Tidskrift (Uppsala).

1932. No. 1. *Observations on Remedies for the Crisis, and the Value of Commodities, Money and Gold.* D. DAVIDSON. The term "crisis" should refer only to the period of transition from the depression. Cassel's diagnosis of the present crisis and his definition of stability in the value of money are rejected. Stability of the general price-level is not a criterion of stability of the value of money in periods when costs are changing. It was the fall in prices which invoked the rise in the value of gold. *The Inevitability of Trade Cycles and their Basis.* G. ÅKERMAN. The part played by unevenness of progress and durable capital is emphasised. Trade cycles would arise from structural changes following on progress in technique and organisation even if over-speculation and changes on the money side were absent. Previous investigations have been too general and abstract, and have neglected the individual characteristics of past trade cycles. The importance of structural changes in transport and the automobile industry in the last American boom and depression is brought out.

No. 2. *The European Timber Crisis.* E. GLESINGER. The price of timber fell 60 per cent. in 1929–32 and costs did not fall proportionately. But the timber crisis was only accentuated by the general depression, and was largely to the internal organisation of the industry. The author predicts an improvement following on the restriction of supply and control of price by international organisation.

Nos. 3–4. *The Rationalisation of the Gold Standard* (in English). D. Davidson. The author begins with a survey of the pre-war gold standard system, in which the minimum demand was the redemption of notes in gold. Its main purpose was to prevent inflation, the evils of deflation being insufficiently realised; any fall in prices is not necessarily deflationary. Before the war, gold flows occurred spontaneously and were allowed to have their full influence on prices, and the policy of the Federal Reserve Board in 1921–24 marked a new departure in this respect. In 1927–29 the value of money was not stable because the value of goods was changing. Davidson supports the stabilisation of the value of money, but the value of goods should be allowed to alter freely. In a gold-standard system the value of gold should influence the value of money, the ideal being that only the value of gold should affect movements of gold. The decisive factor in the breakdown of the gold standard system of 1929 was the stock market crash of 1929, though England's return to an over-valued pound in 1925 contributed by affecting the Federal Reserve Board's discount policy in 1927. The gold standard can be restored in either a loose or more rigid form. Notes should not be redeemable in gold, so that the dangers arising from hoarding and rapid movements of migratory capital would be diminished; expect commissions for obtaining the relevant information should be appointed. International co-operation is necessary to stabilise the value of money, but the experiment of fixing the value of money in gold should first start in one country, preferably England, and then be extended.

Nos. 5–6. *A Statement of the Problem of Trade-Cycle Theory.* J. Åkerman. The author advances as a preliminary definition of the theory of trade cycles as the theory of the causal relations between economic factors of a comparatively regular cyclical nature interacting in a given period. The objective factors are the time- and space-elements such as the length of the period of production, the indivisibility of factors, the irreversibility of changes, and the lack of complete unity in economic society, whilst the subjective factors are uncertainty and the uneven distribution of initiative. The general framework of the problem is real and concerned with the factors affecting the growth of capital, but the theory of money can easily be worked in. *A Sketch of an Algebraical Method of Dynamic Price-Analysis.* D. Hammerskjöld. Following Wicksell, Lindahl and Keynes, the author begins an algebraic analysis of money-flows in order to elucidate the relation between savings and investment. The method adopted is dynamic, because it is not confined to the various anticipated profits at the same moment of time, but embraces profit and anticipated profit. The formulae here employed will be adapted to statistical analysis in a later article. *Antidotes to the Depression and their Theoretical Background.* C. Röhtlieb. Myrdal's memorandum advocating the planning of public works is criticised in detail. The limitations of planning are stressed; further, the State does not diminish risks, but merely transfers them. Flexibility in the prices of the factors of production must be restored and the attempt to maintain consumers' purchasing power abandoned.

1933. No. 1. *A Swedish Payment of War Indemnities in the Early Seventeenth Century.* E. Heckscher.

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THE ECONOMIC JOURNAL

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THE GOLD STANDARD[1]

I

BEFORE the war of 1914–18 the gold standard was among the things taken for granted as an element of Western civilisation. It had served England for nearly a century. The echoes of the bimetallic controversy on the continent of Europe had already died away. It was a controversy that belonged to the nineteenth century. The silver question had ceased to be "spot news" in the newspapers of the United States of America. The spirit of nationalism in currency affairs was on holiday. When, in the last three decades of the nineteenth century, one country after another joined the gold standard group, their action was held to be a sign of progress and they seemed to hold their heads higher than before. They acquired prestige. It was thought that in the Far East the process of industrialisation would be marked—as, indeed, it had already been marked in India and Japan—by a transition from a silver standard to a gold standard adjusted to national conditions.

An unvarying price average was not, however, among the achievements of the gold standard. For roughly two decades before the Franco-Prussian war, the so-called general level of prices had risen under the influence of an increase in the rate of annual supply of gold following upon the Australian and Californian discoveries. The post-war boom, which reached its greatest height in the winter of 1872–73, was followed by a downward trend which, if measured from the top of the boom to the bottom of a depression, continued for approximately twenty-three years. This trend in prices is usually attributed to a fall in the rate of annual supply of gold, but I believe it to have been due, in greater measure, to a rapid increase in the world demand for gold required for monetary purposes. It covered the period during which the gold standard became popular. One after

[1] Presidential Address before Section F of the British Association, Leicester, 1933.

another of the silver and bimetallic countries transferred their allegiance to gold. The United States returned to gold after several years on a paper standard. New territories were exploited, and the respective Governments adopted the gold standard. The world demand for gold reflected the process of transition; it grew far more rapidly than trade and population, and more rapidly than it could be expected to grow under any other conditions or at any time in the future.

By the end of the century practically the whole of the modern industrial world was on the gold standard, and from that time forward the standard was free from the complications and dangers created by the appearance of new disciples. It had become, to all intents and purposes, a world standard. It could be judged on its merits as an international standard. For the time being the countries that had not yet adopted it could be regarded as relatively minor exceptions. The growth in the demand for gold would be expected to keep pace with the growth in population and in trade per head. During the remainder of the period ending in 1914 there was a fall in the relative amount of gold needed as money. Not only was the banknote increasingly employed in ordinary transactions, but in English-speaking and other communities the cheque or its equivalent was growing in popularity. While on the one side the rate of increase in the demand for gold was affected by the cessation of the march of nations towards the gold standard and the growth in the use of substitutes for gold coins, on the other, the rate of annual supply was increased by the development of the South African gold mines. For these reasons the downward trend in prices came to an end about 1895 or 1896 and was replaced by an upward trend which continued until the outbreak of the World War and the suspension of the gold standard.

The rise in prices during this period was not acceptable to everybody. The lag in wages caused serious discontent and probably hastened the growth of national organisations capable of much good but also of serious harm. Forces were being generated which have materially helped to shape economic and social events since the war. But the period of rising prices was also one of rapidly developing trade and relatively high profits. The discontent was that of the employed worker rather than, as at present, of the unemployed worker. The former might complain of inequalities in the distribution of wealth, but he could not complain of the pernicious effects of "deflation." As the gold standard permitted a steady increase in the supply of

money, and a rise in prices, the arguments now frequently employed against the gold standard would have sounded foolish. The standard itself was enjoying a respite from popular criticism. In its broad sense it was accepted on all sides as not merely inevitable but also desirable.

Then came the war, with the usual economic consequences of war. The gold standard was abandoned by nearly every country and currencies were left to the mercy of needy Governments. The inevitable war-time inflation was followed by the customary post-war boom and the process of inflation was carried a stage farther. The subsequent period of depression and falling prices imposed a searching test of economic policy and revealed the degree of exhaustion from which the various countries suffered. Currency instability and trade depression were associated in the minds of people as cause (or part cause) and effect. It was assumed that if and when currency stability was restored the world would have a chance of recovery: without such stability recovery was impossible. It was known, even at that time, that stability was a term that begged most of the questions at issue, but such a detail was of no consequence at a time when people longed for the restoration of pre-war conditions. The world that disappeared in 1914 appeared, in retrospect, something like our picture of Paradise. The financial leaders were strongly supported by public opinion when they pressed for a return to the gold standard.

The world returned to gold. The defeated countries, whose currencies had been destroyed by inflation pursued to its logical end (though not in obedience to logic), created new currencies linked to gold. After "looking the dollar in the face" for a couple of years we restored the gold standard in 1925 at the pre-war rate. In the following year France and Belgium stabilised their currencies in relation to gold and in 1928 restored the gold standard, France fixing her currency at about one-fifth the pre-war gold value. Meanwhile most other countries had joined the gold standard group. Within the space of four years the gold standard had been restored, and it remained in office—though not always in power—until 1931, when it was again destroyed. From 1924 to 1929 most of the currencies of the world were stable, and the economic world made rapid progress, although, for reasons that will presently be noted, Great Britain did not enjoy a reasonable share of that progress.

The depression in trade after 1929 imposed too heavy a strain upon our own country and in 1931 we again suspended specie

payment. Our example was followed at intervals by a large number of other countries, and now the world is divided into two parts, the group of countries that have abandoned the gold standard and those that still, in fact or in theory, have clung to it. When, a few months ago, the United States joined the former, it became evident that the influence of gold was weaker than it had been at any time since the war.

In this country the gold standard had appeared to act as a strait-jacket. The paper pound had been given such a high gold value that our freedom was severely restricted. In spite of pessimistic predictions before the step was taken, the feeling engendered by the suspension of gold in 1931 was one of newly-found freedom. The fall in the external value of our currency actually stimulated trade. We found, however, that we were merely enjoying a larger individual share of a diminishing total. And other countries discovered that they could, with advantage, join in the game of "beggar-my-neighbour," which France had been quietly playing for several years and we had begun to play in boisterous fashion. Then followed the new practice of "competitive depreciation" with the aid of instruments euphemistically called "exchange stabilisation" or "exchange equalisation" funds. Before this new practice spread we were enjoying our new freedom. Gold was a "fair-weather standard," to which we were in no hurry to return. America wanted us to return to gold, but why should we rush into new danger? Disillusionment came when the United States (and therefore Canada) joined in the new game. The most recent experience, with new and strong players, has led us to believe that, after all, the game is not worth the candle, and that what we had termed a strait-jacket was merely that sort of discipline which is a condition of freedom. The gold standard promises once more to become popular.

II

The brief survey that I have submitted suggests the need for a restatement of monetary theory. In spite of all that has been published in recent years I do not believe that the monetary standard has yet received adequate treatment as a separate problem. In most cases the discussion of the standard has been more or less incidental to the discussion of other problems that either appear more urgent or are regarded as the central theme of the writer. Naturally I do not propose, in this paper, to attempt to fill the gap. But I venture to attempt to place before you

those issues which, in my opinion, can be appreciated by the general public and must be faced if we wish to restore and afterwards maintain the gold standard in this and other countries. Moreover, I shall submit reasons for my belief that we should again seek to establish that standard, and that some modifications recently suggested would tend to weaken rather than enhance its value as an instrument of social progress.

Money is the means by which we secure ownership of things that we desire, or obtain services of various kinds. The amount of money paid for goods and services is the result of bargaining between buyers and sellers, and this result is influenced by certain fundamental considerations. One of these is the connection or sympathy that normally exists between the rates of payment (which I shall call wages) prevailing for personal services. If a coal-miner earned ten times as much as a railway worker everybody would know that there was some highly abnormal influence at work which would ultimately disappear. Relative wages are governed by silent and persistent forces known to every student of elementary economics. They tend to arrange themselves around a mean wage in the manner determined by such forces. In a world of change the dispersion of actual wage rates at any time is never precisely that which the persistent forces tend to produce; nevertheless, the correcting influences are always at work. Again, the "short period," during which deviations from the "normal" distribution about the mean level may continue, tends to grow longer. The mills of competition grind slowly. But they continue to grind. We know that a rise or fall in the wages of one group will not be permanent unless it is followed by a corresponding change in the wages of the other group, or unless there has been a change in the nature of the persistent forces to which I have referred. It is precisely this sympathy in wage movements that gives significance to the conception of an average wage and to movements in that average.

If it be true that the relationship between individual wages is not arbitrary, it is also true that the relationship between individual prices is not arbitrary. In the long run prices are governed by costs, and costs ultimately mean wages. Even economic rent, in the last resort, is a function of the wage average. If prices are governed by costs and costs by wages, and if relative wages obey a law of distribution, it follows that actual prices also tend towards a "normal" arrangement or distribution. If a house of ten rooms could be purchased for the same sum as a hundred tons of coal, everybody would recognise the existence of some abnormal

influence which could not fail, ultimately, to bring a correcting influence into play. A rise or fall in a large group of prices will not be permanent unless either a similar change takes place in the remaining group or a change has occurred in the real costs, and therefore money costs, of supply. It is precisely this sympathy in prices that gives significance to changes in the price average or general level of prices. As in the case of wages so, too, in the case of prices: the "short period," during which deviations from the "normal" distribution may continue, tends to grow longer; but in the long run the effect of the persistent force of competition (broadly interpreted) becomes evident even in a constantly changing world.

These elementary facts seem to me to provide the true foundation of a theory of money. The supply of money needed by a community, and the supply of money that can be absorbed by a community, is a function of the price average. If every pound of wages or of prices were called ten pounds, the community would merely be using ten times as much money as before. Conversely, if the supply of money is fixed, the price average must conform to that supply, and in a state of equilibrium the wage average and the price average will reflect the normal distribution of individual wages and prices. But a change in the supply of money produces intermediate effects before the final state of equilibrium is reached. Nor is it necessary to stress the practical importance of these intermediate effects, which will presently be considered. At the present stage, however, it is desirable to confine our attention to the characteristics of a community in a state of equilibrium in the sense of being free from the intermediate disturbances of a process of change.

I have referred to the existence of a normal distribution of wages and of prices. The statements that I made are applicable to every community in which order is maintained, either through the force of competition or by legal enactment. But the normal relationship of wages or of prices is not the same in all communities: each has its own characteristics. Thus, for example, the relative rates of remuneration of school teachers, coal-miners and railway workers may not be the same, under normal conditions, in Great Britain as in Germany. The normal distribution may vary, within narrow limits, even between different parts of Great Britain. The statement may be extended to include prices. Nevertheless, it is true to say that for each community there exists a normal relationship of wages and of prices towards which actual wages and prices tend. I assume this broad generalisation in all that follows.

My next statement is equally elementary. It is a truism that some commodities and services supply local markets while others supply national or international markets. In the market, whether it be local or world-wide, there is a strong tendency towards a common price. Within this country the price would be quoted in the same money, but in other countries it would be quoted in some other kind of money. If, however, we exported a commodity, we would normally expect to be paid, in foreign money, an amount equivalent to the British money obtainable for it if it were sold at home. The means of payment may be some foreign money—we may, for example, accept payment in marks—but the measure of value is our own money.[1]

For the purpose of simplifying the statement I shall assume commodities (including services) to be divided into two groups, international and domestic, the former comprising those which are commonly exported from one country to another and the latter those which supply local markets. Further, I shall neglect variations in costs of transport. Finally, I shall assume that all communities or countries employ gold as money. It follows that international commodities command the same prices in all countries. British exports are sold at the same prices as German exports or American exports. But we have already seen that the prices of British exports are normally related to the prices of all other things produced and sold in Great Britain. Consequently the price average or general price level in this country will be such as to produce the international prices for international commodities, while the wage average or general level of wages will be such (under a normal distribution of individual wages) as to produce that price average. It does not, however, follow that the wage average in this country must be the same as in other countries. The wage average will be a function of natural conditions, industrial technique and human efficiency; but it must be such as to enable the country to maintain the price average dictated by international conditions.

The same general truth may be expressed in another way. Gold, like other international commodities, is distributed among the markets (countries) of the world in such a way as to command the same value in all. Value in this connection means purchasing power. It follows that in the state of equilibrium represented

[1] It is immaterial that, in this case, we accept the risk of exchange: it would be possible for us to cover that risk, and the cost of covering it would be a prime cost and a component part of the price in pounds. In a state of equilibrium there would be no such risk.

by such a distribution of gold, the exports and imports of a country are balanced.[1] It must be so, for it is evident that if exports do not balance imports there will be a flow of gold from one country to others. This flow will only cease when a true equation has been established.[2]

It will be clear from the statements already made that if all countries employ gold, and only gold, as currency, each must accept the wage and price average or level dictated by the price average of international goods, and that this will be determined by the gold supply in relation to the demand. If the gold supply is x the price average will be half as high as if the supply were $2x$, for in making such a comparison we may assume the rapidity of circulation to be the same in the two cases. Such a currency therefore imposes a discipline upon each country; it must march in step with the others. If one country found a gold mine within its boundaries, issued currency to the amount of the new supply and raised wages and prices to the extent of the new available currency, exports of other commodities would fall and imports increase, with the result that the gold would flow out until a new equilibrium was reached at a correspondingly higher international price average. During the intermediate stages the industries supplying international commodities would be depressed in the country possessing the new gold mine, and correspondingly more active in other countries. This change in the state of trade would be the active force that would restore the new state of equilibrium.

It will also be evident that the same results will follow if, instead of using gold as currency, each country employs paper representing gold, pound for pound, or dollar for dollar, so that any variation in the supply of gold is automatically followed by a variation in the supply of paper currency. Nor is the case altered if gold represents not a hundred per cent. but x per cent. of the paper currency. For it is clear that a given variation in the supply of gold is followed, automatically, by a similar percentage variation in the supply of currency. Moreover, it is obvious that the smaller the percentage gold reserve (that is to say, the greater the economy in the use of gold) the higher the

[1] It should not be forgotten that I am assuming exchange to be confined to commodities, including services. I shall presently refer to movements of capital.

[2] In the complex economic system which I shall consider at a later stage, exchange equilibrium between two or more countries may be defined in either of two ways, namely, a rate of exchange which maintains a balance of payments and a rate which represents equivalence of price levels. These are not necessarily identical. In a changing world they are not even likely to be identical. Failure to distinguish between the two, and to state in which sense equilibrium is being employed, has clouded much recent controversy.

price average of international goods and the wage and price average within each country. But it remains true that each country is subjected to the discipline to which I have referred.

Provided one condition is satisfied, the case is not altered if, instead of merely employing paper currency the supply of which is automatically adjusted to the supply of gold, a country also employs means of payment, such as the cheque, the supply of which may vary independently of the supply of gold. The condition is that the country remains on the gold standard. The gold standard is a legal enactment to the effect that the legal tender of a country shall be convertible on demand into a specified quantity of gold.[1] Its economic significance is that it maintains a fixed rate of exchange.

While a country is on that standard it is forced to adjust its price average, and therefore its wage average, to the international price average. So long as the currency is a stated proportion of the gold supply the currency adjustment to a change in the latter is automatic. But when such currency is supplemented by means of payment the supply of which is not automatically controlled, some other means of adjustment must be found. In modern communities the duty of adjusting the supply of money, in its broad sense, and thereby administering the Gold Standard Act, is entrusted to the Central Bank or some equivalent organisation. The Central Bank is given the right to issue legal tender, and the supply is always—though not necessarily—specified in relation to gold supply.[2] But there is no legal regulation of the use of other means of payment. Control is left in the hands of the Central Bank, and the instrument of control is the rate of discount, supplemented and made effective by open market operations.[3]

[1] In the English Gold Standard Act of 1925 it was provided that legal tender was only convertible into gold provided that the amount to be converted was not worth less, at the defined rate, than 400 ounces of gold; but this provision was merely a safeguard against the use of gold for internal purposes, such as currency. The paper pound was declared to be convertible into gold at the rate of £3 17*s.* 10½*d.* per ounce of standard gold, that is to say, it was worth the gold contained in the pre-war sovereign.

[2] The precise methods differ in different countries. We favour a fixed fiduciary issue; other countries favour a fixed percentage gold reserve. This difference is not fundamental. The former produces less violent reactions and therefore facilitates a steady adjustment. The latter tends to produce unnecessary fluctuations during a process of adjustment to a new state of equilibrium. The English method seems to me better than that employed in the United States.

[3] It is important to stress the fact that the Central Bank is not a free agent. It is entrusted with the duty of maintaining the gold standard, and its action must be guided by the need for fulfilling its obligation under the Act which

By means of the rate of discount, reinforced, when necessary, by open market operations, the bank is able to control the supply of means of payment and thereby to adjust the wage and price average to the international price average. That being so, control by law of the supply of legal tender is not inevitable. It may still be desirable, for it is usual for the discount policy of the bank to be governed by the supply of legal tender held in reserve and this, in turn, is determined by gold movements. Nevertheless, it represents a stage in the evolution of the credit system rather than an integral part of a perfect system. It is even more desirable in other countries than in Great Britain. On the other hand, it is clear that the proportion of gold held against currency may be materially altered without prejudice to the present system. The latter secures an automatic adjustment of the internal price average to the international price average, and this may be done with a 30 per cent. gold reserve as effectively as with a 40 per cent. reserve. A change from the larger to the smaller reserve would permit a substantial rise in the international price level.

The discussion of the gold standard has been based, so far, upon an important assumption, namely, that trade between countries consists of the exchange of commodities, including such services as shipping. I have ignored capital movements and interest payments. On that assumption I have tried to show that, when countries are on the gold standard, their internal wage and price averages must be adjusted to the price average of international goods. In a state of equilibrium trade between the countries will be balanced, that is to say, exports and imports will be equal in total value. Within each country the wage and price averages will represent a normal distribution of particular wages and particular prices. If equilibrium is disturbed, gold movements will follow. In practice the equilibrium between countries will quickly be restored through the adjustment of the internal prices of international goods following depression on the one side or, on the other, greater activity. But the resulting internal disequilibrium is not so quickly removed. Some trades

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defines the standard. Since 1925 the Bank of England has been criticised on numerous occasions for pursuing a discount policy which was regarded as inimical to industrial progress. I do not suggest that the policy of the Bank has always been above reproach. I do not, indeed, believe that academic economists usually possess sufficient information to justify comment upon current policy. It is clear, however, that much of the popular criticism of the Bank has been due to failure to distinguish between the necessities imposed by the Act of 1925 and the policy of the Bank in circumstances that allowed freedom of choice.

are affected more quickly and seriously than others; some are sheltered, others unsheltered. Wage rates in the latter fall out of line with wage rates in the former. So long as this adjustment is delayed the intermediate effects will continue. But in the long run the condition of domestic disequilibrium will be changed and a new position of stable equilibrium be reached, both within the country and between different countries.

In the next stage of the discussion it is necessary to consider the effects of capital movements. One of the commodities entering into the final price average is capital, which, for my present purpose, I shall divide into investment capital and liquid capital. It is well known that the price of capital is higher in new countries than in countries which, in the industrial sense, have reached maturity, and that the difference is greater than the measure of relative risk. Hence we find a movement of capital from older to younger countries, enabling the latter to develop more rapidly than they would be able to do without such assistance. Investment is an import (of bonds) which must be offset by an equivalent export of commodities. Other things being equal an investing country therefore enjoys an excess of current exports of commodities (including current services) over imports. We need not pause to consider whether foreign investment or the excess of exports is the cause, or which came first. It is sufficient to point out that, in a position of equilibrium, the price average within a country must again be such as to make the price average of exports equal to the international price average and that, for commodities (including current services), the average will be lower than it would be if capital were not being exported. But in due course the lending country receives interest, and the amount of interest increases annually. This inflow of interest neutralises a corresponding outward flow of capital. By 1914 the interest receipts of Great Britain were apparently less than the amount of capital annually added to our foreign investments. Our exports of commodities (including current services) appeared to be less than our imports of the same kind. We were reinvesting abroad nearly the whole of the interest upon accumulated investments, but apparently we already needed a small proportion of such interest to pay for current imports. A debtor state which had ceased to borrow also possessed a surplus of commodity exports, the surplus being needed to pay the interest on accumulated debt. Such was the position of the United States of America before the outbreak of the World War.

The growth of long-term investment was normally so slow and

regular that it did not destroy the internal equilibrium of the investing country. For short periods it might invest more or less than the commodity surplus representing the sum available for investment. But in such cases the balance of payments was maintained by the transfer of liquid capital. The investment operation was supplemented by a credit operation. Similarly, if for any other reason there was a temporary excess of imports or exports the surplus or deficit was removed by a movement of liquid capital.

It is here that we find the essential difference between investment capital and liquid capital. Investment might well be termed an industry resembling coal-mining or cotton manufacture. It possessed (if we ignore cyclical fluctuations) a fairly constant market outside the country and had been built up slowly upon the assumption that the market was comparatively safe and likely to grow. Other industries, supplying the commodities representing the export surplus available for investment, had also grown up alongside the investment industry, their growth being based upon the assumption of continuity in the growth of investment. In short, investment was an integral part of the industrial structure and an influence determining the remaining permanent features of the latter. It was not an accident of growth or an occasional visitor. Continuity was of its essence, and if all foreign markets for British capital had suddenly disappeared, industry would have been reduced, for a time, to a state of chaos. Liquid capital, on the other hand, was employed, in different places and at different times, as an equalising factor. Its purpose was to restore or maintain temporary equilibrium when equilibrium had already been destroyed or threatened; to ease the restoration of true or stable equilibrium by reducing the intermediate effects of a process of change or the effects of some temporary disturbing factor. I shall endeavour to show that some of our most serious difficulties since the war have been due to the fact that the distinction between investment capital and liquid capital has lost much of its pre-war significance.

III

The conditions that I have described in the second section seem to me an essential part of a secure foundation for the working of the gold standard. But they do not indicate all the conditions that must be satisfied. In order that this may be made clear it may be desirable to indicate very briefly the features of the

pre-war gold standard and the essential differences between the working of the pre-war standard and the working of the standard since the war came to an end.[1]

The pre-war standard was of slow growth and became the foundation of a financial system of a highly complex character regarded from the point of view both of structure and of function. The standard was adopted by one country after another under conditions favourable to its operation; it represented a choice between three or more alternatives, and its adoption was regarded as a real advance. The first important point that I would emphasise is that the industrial structure had been adapted to the requirements of the standard. The normal level of wages, costs and prices was adapted to the rate of exchange and consequently to the international level of prices. The currency was neither over-valued nor under-valued, but neutral. The theory of comparative costs afforded a real explanation of the distribution of industry and trade between nations. Changes in the distribution of trade were slow and continuous and were due either to changes in the relationships of real costs of production or to changes in tariff policies. It is, of course, true that changes occurred in the relation of the gold supply to the world demand for gold and therefore in the international price level, but these were so slow as to present no serious obstacle to the adjustment of wages and costs in individual countries. In this connection it should be observed that gold was allowed to move freely from one country to another in response to economic influences and that movement was only due to such influences.

In the second place, the savings of the people were invested in long-term securities. A comparatively small amount was added every year to the fund of liquid capital employed in financing trade; but this fund was determined by trade requirements and by the opportunities for long-term investment rather than by the willingness or unwillingness of their owners to invest.

In the third place, the long-term investments of lending countries, such as Great Britain, Germany and France, were appropriate to the industrial structures of both lending and borrowing countries. Thus, for example, the industrial structure of Great Britain and the annual overseas investments of Great Britain formed pieces which fitted together to form part of the economic mosaic.

[1] I discussed these in greater detail in a course of four lectures delivered shortly before Christmas to the London Institute of Bankers and published in the *Journal* of that Institute.

In the fourth place, although most of the countries of the world were living under protective systems, and of systems of greater or less protection, tariffs were not employed to correct temporary failures to balance international payments during periods of depression. Protection represented a choice of alternatives and in each case the system was carefully thought out and determined by long-term considerations. For a relatively long period of years a protective system could be regarded as a constant; international trade adapted itself to that system and for this reason the system did not seriously prejudice the operation of the gold standard. This statement does not constitute a defence of protection.

Finally, the credit system of the world was not only firmly organised, but organised in such a way as to facilitate the working of the gold standard. The Bank of England acted not only as the Central Bank of Great Britain, but also as a sort of International Bank of Economic Settlements. In time of need it was able to draw funds from other countries and to employ those funds at the place of need and in the manner dictated by that need. One of the outstanding features of the system was that, when any country was in distress, the Bank of England was able and ready to mobilise the reserves of the world and to rush to the rescue of that country. Credit or liquid capital was thus a balancing influence rather than an influence employed to destroy an existing state of equilibrium. If actual gold was needed it was forthcoming, as in the case of the United States of America during the crisis of 1907; if a short-term loan was needed, gold was not unnecessarily moved from one country to another; gold movements merely supplemented credit operations. Gold was not an alternative to a short loan, neither was it moved about in such a way as to necessitate a counteracting short loan operation. Both credit and gold movements were correcting rather than disturbing influences; they restored rather than destroyed equilibrium. The Bank of England adopted a more or less neutral attitude in the sense that it performed the essential functions of an International Bank and regarded the problem of monetary stability as an international problem. I do not, of course, suggest that its attitude was altruistic and that Great Britain voluntarily adopted such an attitude merely in the interests of world stability and progress. Such was not the case. The economic structure of Great Britain and the position that she held as the largest investing country and the centre of world finance made her individual interests identical with the interests

of the world as a whole. There was no conflict, or presumed conflict, between the one and the many.

IV

In all these respects the post-war world has differed from the pre-war world. Moreover, it seems to me that it is in precisely these differences that we find the real explanation of the failure of the gold standard, and that, before we can hope to establish any international standard that will stand the test of time, it will be necessary to restore those conditions which made the pre-war gold standard not merely workable but also highly successful.

In the first place, the post-war gold standard was not of slow growth. Most of the countries that had abandoned gold under the pressure of war rushed back within the short space of about four years, and without considering with sufficient care the changes that had occurred in the underlying economic conditions. The result was that in some cases the rates of exchange were fixed too high and in other cases too low. I may refer briefly to the two outstanding examples—Great Britain and France. In 1925 we returned to the gold standard, and in doing so gave the pound the same gold value as it possessed before the war, that is to say, we restored the pre-war dollar rate of four dollars eighty-six cents to the pound. It was felt by many critics that such a value was too high in relation to the relative wholesale price levels of Great Britain and the United States of America. For several months before we returned to gold the dollar value of sterling had been rising, as the result of a transfer of funds to this country, without any change in the underlying economic conditions. Our price level, it was said, was appropriate to the dollar rate that prevailed before such transfer took place, so that in restoring gold at the pre-war parity the Government over-valued our currency, the extent of over-valuation being estimated roughly at 10 per cent. It was therefore necessary to reduce our price level by 10 per cent. in order to be able to supply international goods at the international price level.

It seems to me that that criticism was inadequate. After the boom of 1920 we suffered a period of severe depression, during which wage rates in the industries supplying international goods (that is to say, the unsheltered industries) were reduced to an extent far exceeding the reductions that were made in the rates of wages prevailing in sheltered industries. In spite of these

reductions the return upon capital invested in the unsheltered industries fell below the normal rate obtainable in the sheltered industries. Thus we were already suffering from an internal industrial disequilibrium; the normal distribution of particular wages to which I referred in the second section had been seriously disturbed. Although the wholesale price level for international goods was made, say, 10 per cent. too high by the return to gold, it represented a price level based upon an unduly low wage average in the industries concerned and an unduly low average return upon the capital invested in such industries. For that reason I believe that the degree of over-valuation was seriously under-estimated by the majority of those who objected to the conditions under which we returned to the gold standard. The new standard imposed two tasks upon this country, the first being to reduce by 10 per cent. the price average or price level of the products of the unsheltered industries, the second being to make this new level represent a normal distribution of wages, costs, prices and profits throughout the whole of British industry. Even if there had been no other factor in the situation it is clear that an almost impossible task had been imposed upon the nation. But a further difficulty arose, after 1925, in consequence of a fairly steady fall in the world price level itself. In spite of the reductions in wage rates in the years that followed the return to gold, I do not believe that we succeeded in doing more than keep pace with the world price level. We had failed in the double task that had been set by the restoration of the gold standard.

The over-valuation of the pound inevitably produced a depressing effect upon British industry. It acted as a veiled tax upon exports and a veiled bounty upon imports, with the result that our export surplus was considerably less than would otherwise have been the case. At the same time the world was in need of capital and the tradition of London as a centre of foreign investment led to an attempt to meet this world demand. British capital was invested abroad to an extent exceeding the available export surplus, but this result was hidden by the fact that during the same period other countries sent their liquid capital to London in search of security. I shall return to that point presently; at the present stage I wish to stress the fact that, if such funds had not been imported to this country, the underlying weakness of our position would have been revealed earlier. It would have been necessary to maintain even higher discount rates than those which prevailed and to pursue a policy of more severe deflation. The depression in trade would have been even

greater than actually proved to be the case. This danger was averted by the importation of funds from other countries, although such importation created a danger of another character which will be presently considered.

The case of France differed materially from our own case. When, after a period during which the value of the franc was stabilised, the French Government restored the gold standard, the franc was given a value of approximately one-fifth the pre-war value in terms of gold. But the wage, cost and price levels in that country were such as to suggest a value far higher than that actually given to the franc. The result was that while in Great Britain the gold wage level was about 75 per cent. above the pre-war level, in France it was even below the pre-war level, and even at the present time seems to be little if any above the pre-war level. It is precisely for this reason that the French at the present time are able to contemplate with equanimity the prospect of a return to prosperity without any rise in the price level of that country. Further, the under-valuation of the French franc acted as a veiled bounty upon all exports and a veiled tax upon all imports. The temporary effect was to increase the export surplus (which was further increased by the receipt of Reparation payments from Germany) and to enable the French to amass balances which were left within call in other countries. The funds that accumulated in this country were largely French funds.

In the second place, as we have already seen, a large proportion of the savings of the people of different countries, instead of being invested in long-term securities, were held within call. Thus a vast amount of capital (estimated at two thousand million pounds), which should, and normally would, have been invested in industrial and other long-term securities, was held in liquid form and was moved about in search of security—security which included rapid realisability and was of more importance than a substantial difference in the rate of interest. That confidence which is generated by peace and normal economic development was lacking; the risk factor was over-valued. One result was that industries became heavily burdened with fixed-interest and short-term debts. In this connection it is important for the future to observe that the distinction between investment capital and what I have called liquid capital has lost much of its importance. The war has resulted in a large increase in securities (mainly issued by governments) which can be realised upon an international market with very little delay. These securities are

now held to a greater extent than in the past by people who wish to retain their capital within call. They are therefore far more susceptible to sudden changes in demand and immediately available supply, and their existence on such a large scale has added to the instability of the post-war economic world.

In the third place, a change of the first importance has taken place in the financial relationships of nations without a corresponding change in their industrial structures. The United States of America provides the outstanding but by no means the only example of such change. Immediately before the war that country, although a heavy debtor, had ceased or almost ceased to be, on balance, a borrower. Her industrial structure was appropriate to that state of affairs. She possessed a large export surplus representing interest upon, and to some extent the repayment of, the accumulated loans of the past. The war enabled her not merely to pay off her debts but also to become an important creditor state. Her industrial structure remained practically the same as before; the interest element was transferred from one side to the other side of her account with the rest of the world. Not only did she possess an export surplus in respect of commodities and personal services but that surplus was now augmented (where once it was offset) by interest payments. She was like Mr. Manhattan of comic-opera fame, "all dressed up and no place to go." One factor in the situation is the amount owing to America in respect of so-called war debts, but from her point of view it is not an important factor. The much-discussed transfer problem is as relevant to and important for America in the case of other forms of indebtedness as in that of the debts of other governments. What is peculiar to the so-called war debts is the fact that they represent a contract between two governments, but this is of no international economic significance.

The failure to fit the industrial structure of the world to the new financial relationships between nations constituted one of the real difficulties in operating the post-war standard. I have already referred to the fact that, before the war, gold moved from one country to another in response to economic influences and that such movement produced its effect upon monetary policy and relative price levels. Since the war the changed financial relationships have caused not merely a large-scale movement of gold but also a concentration of gold in those countries in which the change in financial relationships, with the given industrial structure, had not been fully offset by a policy

of foreign investment. Thus France and America have jointly amassed a large proportion of the total world supply. But they have not allowed that supply to produce its pre-war effects. About ten years ago Mr. McKenna rightly pointed out that America was on a dollar standard, not the gold standard. It is, I believe, literally true to say that at no time since 1920 has the United States been on the gold standard in the full technical sense of the words. It is equally true to say that France, while legally on the gold standard since 1928, has never accepted the implications of that standard. The reason for the failure of these two countries to employ the gold standard in the full sense of the words is to be found in their unwillingness either to adapt their industrial structures to the new financial relationship or to embark upon such a policy of foreign investment as would enable them to maintain the existing industrial structure.

Again, the credit system of the world has been completely disorganised. The change in the relative financial strengths of Great Britain, America and other countries has tended to reduce the pre-eminence of London as the financial centre of the world; the power of the City has been challenged by New York and Paris. But that is not the only change that has occurred. I have already referred to the existence of a large mass of liquid capital that would normally have been absorbed by industry in the form of long-term investments. This liquid capital has not been employed by the Central Banks as a stabilising factor; on the contrary, it has proved to be a disturbing factor. Before the war the Bank of England, as the centre or controller of international credit, employed such credit in the service of distressed countries and thereby maintained financial stability. Since the war it has not been able to perform this function with the same effect, while other countries that were able to render assistance could not be relied upon. When the credit of any country was threatened, foreigners withdrew their funds in search of security. When, in 1931, we needed the type of assistance that we were accustomed to render to other countries, the latter deserted us like rats deserting a sinking ship. A large mass of liquid capital moved about the world leaving crisis in its train and creating embarrassment to the countries that it sought, always hunting for security without ever being sure of finding it. The most recent victim of the damage wrought by this movement is the United States of America.

V

In the fourth section of my paper I have tried to indicate those differences between the pre-war and the post-war gold standards which accounted for the success of the former and the failure of the latter. The question arises whether, under present conditions, it is worth while either to restore the gold standard or to establish any other form of international metallic standard. It is known to all economists that the difficulties of working the post-war gold standard were increased by technical defects in banking organisation, particularly in the United States of America and in France. A discussion of these defects would not be possible in this paper; I refer to them merely to indicate that I am aware of their existence. But I believe, and I therefore assume, that if the more fundamental difficulties to which I have referred were overcome it would be possible to solve purely technical problems.

The essential feature of the gold standard is that it maintains a fixed rate of exchange, establishes an international price system in the sense of a common measure of value, and controls the internal or domestic supply of currency and therefore the domestic level of prices. It seems to me that if we are to return to the gold standard it must be a standard that retains this feature. Before the war a movement of gold from one country to another automatically reacted upon the relative supplies of money in the countries affected. It has been suggested by the Gold Delegation appointed by the Economic Section of the League of Nations that in future the various countries should maintain free reserves of gold. The gold supply of a country should be divided into two parts, the first being the legal reserve against currency, the second being the surplus available for export. The purpose of the scheme is to secure that an export of gold from or an import of gold into the reserve should not react upon the currency policy of the country concerned.

It seems to me that this proposal would destroy the vital element in the gold standard. In recent years we have seen how free reserves are actually employed in practice. In America they were placed on the most inaccessible shelves of the vaults of the Central Banks. In many of the smaller countries they were virtually added to the legal reserves. They were exported with extreme reluctance and the loss of gold even from those reserves reacted upon the discount and currency policies of the losers. Further, it is clear that if all countries maintained free reserves, a considerable proportion of the total reserve of gold in the world

would be rendered ineffective as a foundation for currency, with the result that the gold price level would be lower than under the alternative system. But the real argument against the proposed system is that a movement of gold would not be producing the effect upon internal policy that such a movement ought to produce under normal conditions. At best we should be using the cumbrous method of moving actual gold instead of the pre-war method of moving liquid capital or providing credit; at the worst it would delay a domestic adjustment so long as to make such adjustment greater and more difficult and thus endanger the standard itself. For these reasons it seems to me that the proposal does not constitute an improvement upon the pre-war gold standard. The same reasons lead me to believe that the suggested compromise of establishing and maintaining a wide margin between the buying and selling prices of gold would destroy what is most valuable in the gold standard.

If we ignore other metallic systems it seems to me that the real issue lies between the gold standard, rigorously interpreted, and the maintenance of national currencies which are not linked together by being linked to gold or to any other common measure. When we abandoned the gold standard the alternative achieved considerable popularity in this country, but all recent experience has shown that, during a period of currency disturbance, it tends to increase rather than reduce our difficulties. My objection to the system, however, is due not to the fact that it has created or intensified difficulties under present conditions, but to the fact that it would create difficulties of the present type even though it were introduced under the best possible conditions. The system has been advocated on the ground that it would enable us or any other nation to pursue a currency policy that would maintain a stable price level. For reasons which I cannot give in this paper I believe that precisely that sort of stability which they seek is more likely to be achieved under the gold standard than under a system in which such stability is the immediate object of national policy. But it seems to me that a wider and deeper issue than even price stability is involved in the discussion of the two alternative monetary systems. The national currency system is but one aspect of economic nationalism or economic isolation, of which tariffs is another. A national system of currency is intelligible if not defensible for a nation which isolates itself from the family of nations. It is not, however, consistent with a policy of internationalism in other departments of economic activity. The gold standard stands for internationalism in

economic affairs; it is a condition of free development of trade between nations. Nor should it be forgotten that, if most countries were on the gold standard, secular changes in the value of gold would be relatively small. Post-war changes in the value of gold have been due not to the gold standard but to the failure of a number of countries to operate that standard.

Without pausing to consider the case for bimetallism, I venture to express the belief that the restoration of the gold standard is necessary to the progress of the world in that future which is worth considering. I am content to leave the twenty-first century to our great-grandchildren. I do not, however, suggest that the gold standard should be immediately restored; on the contrary, I fear that political considerations will drive us back to that standard before the essential preliminaries have been properly considered. In the first place, it would be folly on our part to return to gold until we knew precisely the rate of exchange that would enable international trade to be distributed in the manner determined by real costs of production. The new rates should be determined by purchasing power parities. We are not yet agreed, however, upon the precise meaning of purchasing power parity, neither do we possess the information that would enable us to estimate purchasing power parity, howsoever defined. Again, we should not return to gold until the price averages of different countries, expressed in their respective currencies, have reached those heights which are regarded as satisfactory; for it is clear that subsequent changes must be international rather than purely domestic in character. Further, we should not restore the gold standard until individual countries are prepared to pursue investment policies that are appropriate to the remaining parts of their economic structures. It is too much to hope that the great mass of liquid capital which now readily—too readily—flows from one country to another will quickly be invested in long-term securities and thereby cease to be a danger to the financial stability of a number of countries, but it should be easy to form an international exchange stabilisation fund under the control of an appropriate body which, in effect, would perform the pre-war international function of the Bank of England. Such a body would direct the flow of funds according to the needs of individual countries, not, as at present, in the opposite direction.

A word should be added on the question of tariffs. Before the war the tariff system of each country was determined by long-term considerations. During the last few years all countries (our own included) have found refuge in the doctrines of the

mercantilists of earlier days. Tariffs have been used not to direct the development of industry but to direct the immediate flow of trade. An adverse balance of trade is no longer regarded as an incident of economic growth but as a calamity to be avoided at all costs. An established system of protection is not inconsistent with the operation of the gold standard, but frequent tariff manipulation to meet fluctuating trade balances is bound to render any international currency standard impossible. It is too much to hope that the world will abandon tariffs as a measure of protection, but it will be difficult to maintain the gold standard unless the countries of the world are prepared to abandon the system of *ad hoc* trade restrictions to overcome occasional deficits on current accounts. I do not believe, however, that I am too optimistic in stating that this difficulty would quickly disappear. The new practice of adjusting tariffs to failures to balance payments is largely the product of the failure of our credit system. If liquid capital had gone to the rescue of, instead of running away from, countries with adverse balances the need for dealing with the situation in another way would not have arisen. I therefore believe that if we could solve the problem of controlling the flow of credit, either through the creation of an international exchange stabilisation fund, or in some other way, the difficulties created by the new restrictions upon trade would also be solved.

We are frequently told that a return to the gold standard is impossible so long as the world supply of gold is so largely concentrated in two countries. It is no doubt true that the present distribution of gold presents a serious difficulty, but I do not regard it as an insuperable difficulty. The present distribution of gold is the result of those post-war influences to which I have already referred. If we could restore those conditions which are essential to the maintenance of the gold standard it is not unlikely that a redistribution of gold according to apparent need would be accepted. Gold is only preferred to an earning asset so long as the earnings of the latter do not exceed the money estimate of the risk involved. In the last resort, however, the international price level in terms of gold matters less than the domestic price levels expressed in local currencies, so that the difficulty created by an unequal distribution of gold could be overcome by giving an appropriate gold value to paper currency and maintaining a relatively low legal reserve. Moreover, if domestic price levels, expressed in local currencies, are sufficiently high, the burden of fixed debts necessitating a flow of payments from one country to another would not be so heavy as to endanger the gold standard.

A recent judgment in this country, and still more recent pronouncements in the United States, have shown that debts contracted in gold are no longer payable in the gold value expressed in the bonds. A foreign debt payable " in sterling in gold " in this country can be paid in sterling; a gold bond payable in gold dollars can be paid in dollars. This decision has produced a profound effect upon the significance of the gold price level in the world and, therefore, upon the present distribution of gold supplies. For these reasons, while admitting the importance of a change in the distribution of gold, I do not believe that the present distribution, or the probable distribution in the near future, constitutes an insuperable obstacle to the return to the gold standard.

I hope it will be evident that I neither contemplate nor desire an immediate return to the gold standard. Many changes must take place before such action can be taken with safety. When a new currency measure is passed we shall be legislating not for a year but, we hope, for a generation or more. It should not be forgotten, however, that the gold standard is a form of discipline which may itself help to restore some of those conditions that enable it to be operated with success. It is a problem in the art of government to decide when the necessary changes have occurred, and how much may be left to the discipline of the standard itself. In deciding the actual gold value to be given to sterling, I hope that the post-war difficulties of the unsheltered industries will not be forgotten by the Treasury.

J. H. JONES

A CRITICAL CONSIDERATION OF PROFESSOR PIGOU'S METHOD FOR DERIVING DEMAND CURVES

The statistical method devised by Professor Pigou for the derivation of demand curves from market data [1] deserves the most attentive consideration for several reasons: first, because of the fascinating simplicity of the method itself; next, because of the possibility it seems to afford of estimating in each particular case the probable error of the results obtained; and, last but not least, because of the authority attaching to the author's name. The weight of his authority is in this case all the greater because he has evidently been won over by the merits of this method from a position of scepticism with respect to the usefulness of market data for the purpose in hand. He had said in the *Economics of Welfare* (1929 edition) that "attempts to determine the elasticity of demand for any commodity in any market by a direct comparison of prices and quantities are exposed to very great difficulties," [2] and "there is little hope that many elasticities will lend themselves to calculation in this direct way." [3] In the article of 1930 the attitude is changed. He expresses the belief that significant results may in many cases be obtained by the use of his new geometric method and, most important of all, that the reliability or unreliability of the results obtained in this way will be clearly indicated by the dispersion of the figures worked out in the course of the calculations. The advantages of the new method are brought out by comparison with the methods used by others. Referring to the underlying assumptions involved in Professor Schultz's method, he says, "It is not, however, easy to make explicit precisely what these conditions are. A mathematical machine is grinding out results; but the *exact* nature of what was put into the machine at the beginning is, at all events to non-expert readers, somewhat obscure." [4] "This," he says, "is true in a still higher degree of the more complicated

[1] A. C. Pigou, "The Statistical Derivation of Demand Curves," Economic Journal, September 1930, pp. 384–400, and *Economic Essays and Addresses*, by A. C. Pigou and D. H. Robertson (1931). This method is not to be confused with his earlier method of calculating relative elasticities of demand from data contained in family budgets which first appeared in the Economic Journal for 1910, and is also explained in the appendix to *Economics of Welfare*.

[2] *Economics of Welfare*, p. 780. [3] *Economics of Welfare*, p. 781.

[4] Economic Journal (1930), p. 390.

method . . . employed . . . by Dr. Wassily Leontief." [1] Then he goes on to point out " a more serious difficulty," namely, that, " while the objective sought by these writers . . . is avowedly the *most probable* demand curve . . . no explicit calculation is made of the probable error to which the results attained are subject." [2] His own method is then presented as a means of overcoming these objections.

Because the method is naturally so attractive, and because it has received weighty endorsement,[3] it merits the most careful consideration of all who are interested in the progress of price research. In the present article attention will be given mainly to the defects of the method, because it appears to the writer that some of these are of such a fundamental nature as to impair very greatly its practical usefulness, if not, indeed, to undermine the validity of the entire procedure.

The method depends upon four basic assumptions, not all expressly stated, yet clearly implied. They are as follows:

(*a*) It is assumed that the elasticity of demand for the commodity in question is so nearly the same for all quantities within the range covered by the data that the curve would appear on a double logarithmic chart as a straight line. The validity of this assumption, although in many cases seriously open to question, will be accepted provisionally for the purposes of the present discussion.

(*b*) It is assumed that the elasticity of demand remains unchanged even when the intensity of demand has been so altered that the curve is shifted from one position to another. The result of this is that the demand curves for the same commodity at different times must all appear as parallel lines on a double logarithmic chart. This assumption also will be accepted.

(*c*) It is assumed that, in those cases where the demand curve happens to have been shifting continuously in one direction while three chronologically successive price-quantity observations are made, an approximation to the slope of the demand curve can be obtained by calculating the slope of the three parallel straight lines which would pass through three observed points (with

[1] Economic Journal (1930), p. 391. [2] Economic Journal (1930), p. 391.

[3] Professor W. F. Ferger, in his article in the Economic Journal for March 1932, endorses the method and recommends its use in the derivation of supply curves as well as demand curves.

the middle line passing through the second point) and which would be equidistant from one another.

(*d*) It is assumed that it is possible, merely by scrutinising the signs attached to the results, to distinguish these significant cases, in which the demand curve was actually moving continuously in the same direction, from all the other cases in which it was not; *i.e.* to distinguish between those calculated slopes which are supposed (according to the third assumption) to represent the slope of the demand curve and those which are to be discarded as representing nothing significant whatever.

The whole method is developed from a mathematical formula by means of which three equidistant parallel straight lines can be drawn through any three given points in a plane. Suppose that the points are A, B and C with the co-ordinates respectively of (p_1, x_1), (p_2, x_2), (p_3, x_3), and that

$$\begin{aligned} d_1 &= p_1 - p_2 \\ d_2 &= p_2 - p_3 \\ c_1 &= x_1 - x_2 \\ c_2 &= x_2 - x_3 \end{aligned}$$

Then the formula $\dfrac{d_1 - d_2}{c_1 - c_2}$ gives the slope of a triad of lines conforming to the above conditions.[1] In applying this formula to his economic data, Professor Pigou treats each price-quantity observation as a point on a double logarithmic chart. Taking these points then in chronological order three at a time, he calculates the slopes of the triads of equidistant parallel straight lines which would pass through them.

In order to follow through step by step the logic of the method, we must begin by considering a very special case. Suppose that the conditions of demand have been changing in such a way that the real demand curve, if it could be shown on our double logarithmic chart, would have moved continuously in one direction while three price-quantity observations were being obtained, and that the position of the curve when the second observation was obtained would have been *precisely* half-way between the positions occupied when the other two were obtained. In such a case the

[1] To avoid confusion it must be pointed out here that Professor Pigou unfortunately made the mistake of writing $\pm$ at the beginning of the formula, whereas the formula is correct only in its positive form. He admitted the error when his attention was directed to it by Professor Ferger. In his actual calculations he used the correct form, and that is the form accepted as the basis of discussion in the present paper.

slope calculated from the formula as Professor Pigou uses it would be *precisely* the slope of the actual demand curve that is being sought. The lines of the triad obtained from the formula would fall exactly upon the lines representing the demand curve in its three successive positions, and no other lines could possibly be found which would satisfy the conditions laid down. It was apparently the perception of the perfect relationship existing in such ideal cases that suggested the possibility of using the triad formula as the basis of an entirely new method for the derivation of statistical demand curves.

Professor Pigou does not suppose, of course, that the shifts of the demand curve in actual fact are ever likely to be precisely equal,[1] but he believes that *approximately* equal shifts will yield *approximately* correct results. He believes that there will still be a necessary mathematical relationship between the slope of the actual demand curves and the slope of the derived triad. He thinks that the error in the result obtained from the formula will be one of over-statement or of under-statement according as the demand curve moved more or less to the right or to the left between the first two observations or between the second two. Putting it in exact terms (using a_1 to represent the vertical distance between the first and second lines of the triad and a_2 to represent the distance between the second and third) he says:

"When $(a_1 - a_2)$ is positive, the slope is numerically $< -\frac{d_1 - d_2}{c_1 - c_2}$. When $(a_1 - a_2)$ is negative, the slope is numerically $> -\frac{d_1 - d_2}{c_1 - c_2}$. That is to say, when the curve proper to the third interval is further to the left of, or less to the right of, that proper to the second interval than that proper to the second interval is of that proper to the first, the formula $-\frac{d_1 - d_2}{c_1 - c_2}$

[1] Some interpreters insist that he does expect these ideal conditions to be realised in practice often enough to give him a basis for his calculations, and that this is the ground upon which his method should be criticised. That interpretation, however, is inconsistent with his own statements. On page 393 (ECONOMIC JOURNAL, 1930) he says, "The condition of equi-distance . . . will be *approximately* satisfied if and in so far as the state of demand is changing under the influence of causes that act in a continuous and gradual manner." (The italics are mine.) On page 394 he says, "As a rule, for most triads there is likely to be some disturbance consequent upon discrepant swings of demand as between the two pairs of intervals." It is also inconsistent with the procedure by which he decides in the end which is the most probable value for the elasticity he is measuring. Had he made his method depend on precisely equal shifts, he would not have chosen the median, but would have had to find two results that were perfectly identical.

under-states the numerical value of the slope of the curves: in the converse case it over-states it." [1]

This is supposed to follow from the formula $\frac{(d_1 - d_2) - (a_1 - a_2)}{c_1 - c_2}$ which he uses earlier in the demonstration to represent the slope of any three parallel straight lines. But here Professor Pigou seems to have misinterpreted the significance of some of the plus and minus signs. An examination of the diagram below (Fig. 1) will quickly show that his statement is incorrect.

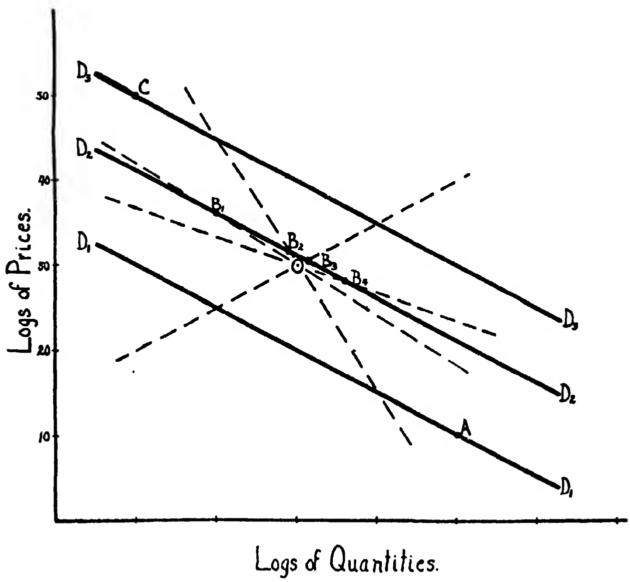

FIG. 1.

Suppose that the slope of the actual demand curve on a double logarithmic chart is $-\frac{1}{2}$, and that it has been shifting continuously to the right at a rate *very nearly*, although *not precisely*, constant while the three observations were being obtained. The positions occupied by the curve when the first, second and third observations were made are shown respectively by the lines D_1D_1, D_2D_2, D_3D_3. Under these conditions, according to Professor Pigou, "the formula $-\frac{d_1 - d_2}{c_1 - c_2}$ *under-states* the numerical value of the slope of the curves." As a matter of fact, it is just as likely to over-state it. Let the first observation give us point A on our double logarithmic chart, with $p_1 = 50$ and $x_1 = 10$. Let the second observation give us point B_1 on the chart, with $p_2 = 36$

[1] ECONOMIC JOURNAL (1930), p. 392.

and $x_2 = 20$. Let the third observation give us point C on the chart, with $p_3 = 10$ and $x_3 = 50$. Then the formula gives us a slope of $-\frac{3}{5}$. Comparing this with the actual numerical value of the slope of the demand curves ($-\frac{1}{2}$), we see that the bias in this case is just the opposite of what was predicted. The over-statement of the slope here was moderate; but it might easily have been great.

Although, for the sake of simplicity, round numbers are used in these illustrations, it is important to keep in mind the fact that they are supposed to be the *logarithms* of the prices and quantities actually obtained from the market records. It may be well at this point to call attention also to the fact that the hypothetical figures used in this and the following illustrations conform exactly to the conditions that are supposed to give the most accurate and dependable results. Professor Pigou says on page 395 of his article that we should "prefer the witness of triads where both the observed prices and the observed quantities differ substantially among themselves."

Suppose now, for example, that supply conditions had been different when the second observation was made and we got point B_2 with $p_2 = 31{\cdot}5$ and $x_2 = 29$. The formula now gives us a slope of $-\frac{3}{2}$. In this case a curve which is highly elastic is represented as if it were quite inelastic.

Again, suppose that our second observation had given us the point B_3 with $p_2 = 30{\cdot}5$ and $x_2 = 31$. Then we get a slope of $+\frac{1}{2}$. This measure is numerically correct, but that, of course, is purely accidental, since the triad obtained would be running in the opposite direction from the demand curves.

Finally, suppose that our second observation had given us the point B_4 with $p_2 = 28$ and $x_2 = 36$. Then we get a slope of $-\frac{1}{3}$. In this case the slope is under-stated.

It is apparent from the foregoing illustrations that no general rule can be based on the relative distances between the demand curves to tell us what bias will be found in the results obtained from the formula.

It is evident also that the slope obtained in any case depends not on the slope of the demand curves nor on the relative positions of the curves, but only on the particular positions of the three observed points. Since the line through B must always pass through the mid-point between A and C (marked O on the diagram), practically any slope could be obtained merely by moving the point B along the demand curve D_2D_2. Each of the dotted lines in the diagram represents the middle line of one of the

possible triads that might be obtained. The spaces between them could be filled with any number of other lines passing through O, all of which would also give possible slopes for triads that might be taken to represent the same actual demand curves. The slopes would also be altered in a similar way by any changes in the points A or C.

The points on the demand curves which can in practice be observed are those associated with the particular quantities that happen to have been marketed during the periods to which the price-quantity data relate. Their positions depend, therefore, as much on the conditions of supply as on the conditions of demand. And, since the movements of the supply curves are independent of the movements of the demand curves, it follows from the foregoing discussion that there is no necessary mathematical relationship between the slope obtained from the triad formula and the slope of the actual underlying demand curves themselves.[1]

It is still possible, of course, to defend the method on the ground that there is a tendency for the results obtained to be distributed in some systematic way around the true value for the slope of the underlying demand curve, and that therefore the median of the arrayed results is the most probable value. Professor Pigou did treat his results in this way, but does not seem to have realised how erratic the distribution was likely to be. He appears to have attributed the differences in the slopes obtained entirely to a single cause, unequal shiftings; and he seems to have thought of them as being proportionate to the deviations of the middle curve of every three from an exactly central position. That being so, it was only natural that he should expect the distribution of the results to be systematic and significant. He says, "On the assumption that the (logarithmic) demand curves of all the intervals are parallel straight

[1] The more constant the rate of shifting of the supply curve the greater will be the error in the results obtained. If the supply curve (assumed to be a straight line on the chart) remained fixed while the demand curve moved at a precisely constant rate, the result would be indeterminate, *i.e.* the figure obtained to represent the slope would be zero. If the supply curve remained fixed while the demand curve moved unequal distances, the slope obtained would be that of the supply curve. If both moved at precisely constant rates, the slope would again be indeterminate. If both moved at approximately constant rates, the second observation would give a point close to the middle point between the other two (like B_2 or B_3) and the triad slope would deviate widely from that of the demand curve. Actually the conditions required to give the most dependable results would be those in which the supply curve had swung back and forth from one extreme to the other between each pair of successive observations while the demand curve moved at an approximately constant rate.

lines, the figure in the final column derived from each triad may be regarded as an 'observation' of the elasticity of demand, subject to an 'error' *due to a deviation from equality* between the distance of the second line in the triad from the first and the distance of the third line from the second."[1] Professor Ferger points out that variations might also be caused by accidental errors in the data, but he does not think these are sufficient to cause any serious difficulty. When, however, we add to these the powerful and incalculable causes of variation discussed in the preceding paragraphs, it is difficult to believe that anything very significant could be learned from the array of results obtained.

In arriving at this conclusion I have assumed that we were dealing with cases in all of which the demand curves were moving continuously in one direction. It is only when we recognise that in actual fact the direction of movement will frequently be reversed while the observations are being obtained that the most fundamental weakness of the method is revealed.

When dealing with actual data, we do not know, as we do in our hypothetical illustrations, what movements have been taking place in conditions of supply and demand. All we have to work with are the successive observations of associated prices and quantities, which we take to represent the points of intersection of the unknown demand and supply curves at the times that the observations were made. From every three successive observations a calculation is to be made according to the triad formula in the hope of getting a figure that may represent the slope of the demand curves. In those cases where it happens that the demand curve was moving in a constant direction the results will be such as those examined above; but in cases where the direction was reversed while the observations were being made, there is not even a semblance of logical relationship between the derived slopes and the slopes of the real demand curves that we are trying to discover.

Professor Pigou himself recognises that the shiftings of the demand curves will often be erratic. He discusses eight different causes which may bring about changes in demand, and admits quite frankly that although some "act in a continuous and gradual manner . . . others . . . *are likely to operate sporadically.*"[2] Among such causes are: changes in expectation about the relation between future and present prices of the commodities directly concerned; changes in the prices of competing or complementary

[1] Economic Journal (1930), p. 395 (italics mine).

[2] Economic Journal (1930), p. 393 (italics mine).

goods; seasonal changes; changes in general business conditions during the different phases of a business cycle (affecting particularly the demand curves for producers' goods); and the accompanying changes in the real income of the community and its distribution among the different classes of society (affecting the demand curves for consumers' goods). These irregular changes and the consequent erratic shifts of the demand curves are accepted as natural elements in the problem, and are supposed to be taken account of satisfactorily in the procedure prescribed. Professor Pigou did not hesitate to apply his method even to such a commodity as copper. He does not claim that any significant results can be obtained from price-quantity observations obtained while these erratic shifts are taking place, but does believe that all the figures derived from such cases can be identified by the plus signs attached to them and can be eliminated from the calculations. That he is mistaken in this belief will be shown in the paragraphs which follow.

The difficulty arises from the fact that through any three given points A, B, and C, on our double logarithmic chart three different triads of equidistant parallel straight lines can be drawn. The middle line of one triad will run through A, the middle line of another through B, and the middle line of the third through C. These triads are easily obtained geometrically, since the middle line through any one point must bisect the line joining the other two. The slopes of all three triads may be obtained from the formula quoted above by treating the co-ordinates of each point in turn as x_2y_2. Whichever one is so treated is the one through which the middle line of the derived triad must pass.

Suppose, now, that the actual (but unknown) demand curve has moved first to the right, as the result of some temporary disturbance, and has then swung back almost to its original location, occupying the positions indicated on Fig. 2 by the solid lines D_1D_1, D_2D_2, and D_3D_3. Suppose that the points successively observed were A, B, and C with co-ordinates (44, 16), (30, 50) and (20, 35) respectively.

Since the curve D_3D_3 occupies the middle position, the triad which would be significant according to Professor Pigou's own reasoning would be the one with its middle line passing through the point C. This, however, is not the triad the slope of which he would obtain from his actual calculations. Since in applying his formula he always treats the co-ordinates of the second observation as p_2 and x_2, the slope he obtains is the slope of the triad with its middle line passing through the point B (indicated

by the dotted lines in the diagram). In this case the slope obtained from the formula would be $-\frac{4}{40}$, indicating an extremely elastic demand, whereas the actual demand is highly inelastic and the true demand curves have a slope of $-\frac{2}{1}$.

This wide discrepancy is not difficult to understand when we realise that the calculated slope must be such that the line through the point *B* will cut across all three of the demand curves within the narrow limits set by the other two observations. There is absolutely no reason to expect that the slope of this triad should resemble the slope of the real demand curves. By the very

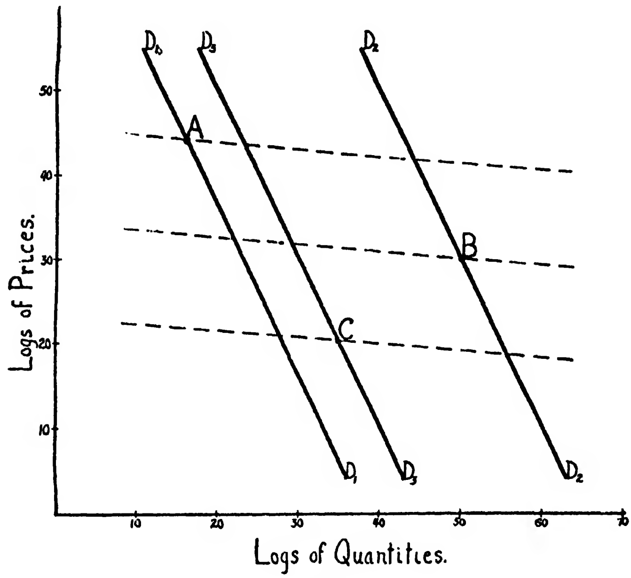

FIG. 2.

nature of the calculations the results obtained are more likely to be wrong than right; that is, they are more likely to misrepresent the slope of the demand curves than to represent it even approximately.

When spurious results obtained in this way are arrayed along with those obtained from the cases in which the shifting *did happen to be in a constant direction*, any faith we may have had in the tendency for the figures to distribute themselves systematically around the true value of the slope we are seeking is completely shaken. Yet it is from just such a hybrid series that Professor Pigou proposes that we should obtain our knowledge about the elasticities of demand. He rejects as irrelevant all the figures with positive signs, but accepts as significant for his purpose all

the figures with negative signs.[1] He has apparently been misled, through some slip in the earlier stages of his analysis, into the erroneous belief that all the negative figures obtained from his calculations must of necessity belong to a single homogeneous series derived entirely from cases in which the movement of the demand curve had been continuously in one direction. Nowhere in the discussion does he recognise the possibility that there could be any triad other than the relevant one which would have a negative slope.[2] If this possibility had been recognised he would undoubtedly have been led to reject the final series upon which the method depends as unreliable; except, perhaps, in special cases where it could be determined from external evidence of some sort which among the items were significant and which were not. As a matter of fact, the only other test he proposes to apply is the test of internal consistency. If the series as a whole is "chaotic," he would reject it; but if it appears to be consistent, he would use it as the basis for his conclusions.

In the light of the foregoing discussion it is evident that Professor Pigou's method is likely to lead in many cases to conclusions with respect to elasticities of demand which are widely at variance with the facts. If it happens, as it may in certain instances, that the demand curve has been shifting continuously in the same direction during the whole of the period to which the data relate, and that the changes in supply, from observation to observation, have been such that the calculated slopes are systematically distributed about the most probable slope of the actual demand curve, the result obtained will be approximately correct. If some means could be found of distinguishing these rather exceptional cases from all others, the method might be

[1] He does suggest that "it will be well to suspect the witness of triads" in which "the differences either among the observed prices or the observed quantities are very small" (ECONOMIC JOURNAL, 1930, p. 395), but, as we have seen above, this gives no assurance that the other figures, which are retained, will be significant.

[2] Indeed, in the explanation of the geometric basis of his method he plainly says that there can be only one triad with a negative slope. Having stated the triad formula with a plus-or-minus sign where there should only have been a plus sign, he goes on (apparently reasoning from this formula), "Thus two triads of lines can be drawn through our three points, the slope of the lines in each triad being equal numerically, but of opposite sign. If now we add the requirement that the lines passing through the three points must be inclined negatively, *only one triad* is possible" (p. 391; italics not his). Actually, however, as we have seen above, there are always three triads that can be drawn, and it would be only by pure coincidence that any two would have numerically equal slopes. It is quite possible, moreover, that all three triads may be negatively inclined (for example, the triads running through the points in Fig. 2 would have slopes of $-\frac{4}{49}$, $-\frac{17}{2}$, $-\frac{38}{53}$).

used to advantage in dealing with them, but in the absence of any basis for such discrimination the dangers of misinterpretation involved in the use of this ingenious method are so great as to offset completely any advantages it may have over other methods in simplicity and explicitness. What may be done in the future to amend the method is, of course, not to be foreseen. But it is fairly certain that dependence will have to be placed on external evidence of the validity rather than on internal; that consideration will have to be given to information regarding the economic forces that may be supposed to have affected the shiftings of the demand curves (and the supply curves) rather than to the characteristics or the relations of the figures obtained from the calculations. And if that is so, it seems to follow as a final conclusion that the method will always have to be used with the greatest caution, and that its legitimate use can probably never be extended beyond a strictly limited field of special cases which happen to lend themselves to this particular type of treatment.

It is only with difficulty that I have convinced myself that Professor Pigou could possibly be in error on any question relating to economics, and it is with regret that I find myself in disagreement, even upon a mere matter of statistical technique, with a man for whose work I have so great an admiration.

JOHN M. CASSELS

Harvard University.

The editor has kindly allowed me to see an advance proof of Dr. Cassels' interesting article. I have not had this matter in mind for some time and am not able to re-examine it thoroughly now. Nevertheless, if Dr. Cassels will forgive a somewhat underbaked reply, I should like to make a brief comment on his two main points.

First, it is clear that I had not considered sufficiently the nature of the error entailed by a failure in the condition of equi-distance. Incidentally, as Dr. Cassels shows, I had stated as a general truth a proposition about the *direction* of that error which is only true in certain conditions. Much more important than this, however, is his demonstration that a very small failure of the condition of equi-distance may involve a very large error in the measure of elasticity that any triad yields. Since it will seldom happen that the condition of equi-distance is *exactly* realised, this is a serious matter, and seems at first sight to render my method quite useless. A consideration of Dr. Cassels' first diagram suggests, however, a way out. It will be seen that the

error is only liable to be large if the observed point at the second date is near the middle of the straight line joining the other two observed points. It would seem, therefore, that figures obtained from triads with that characteristic should be regarded with grave suspicion, or perhaps rejected altogether, and attention concentrated on triads in which the distance between the observed point at the second date and the middle of Dr. Cassels' line *AC* is considerable.

Secondly, Dr. Cassels points out that, when, between the second and third dates, the demand curve has swung in a direction opposite to that in which it is swinging between the first and the second, the triad in question is bound, on my method, to give a wrong reading. This is, of course, true, and should have been explicitly pointed out in my article. If we know, in respect of any triad, that this has been happening—and in some cases we may know it from external data—the witness of that triad should be rejected. But, if we do not know it, we are, I think, entitled to presume, at all events if our observations have been made at fairly short intervals, that only a small proportion of our triads will be of this kind, and that these will yield figures that differ widely from the mean. Should the whole array of figures prove to be chaotic, this presumption is weakened, and, as I said in my article, the whole thing is suspect. If, however, we obtain a substantial number of figures not differing greatly among themselves near the middle of our array, the presumption is confirmed, and the elasticity educed by the method is probably not far off the true one.

In sum, the method does not claim to be one that can be applied in a mechanical way with assurance beforehand of obtaining reliable results. It is necessary, after the arithmetical operations have been performed, to look at the general character of the resultant set of figures and—in the light, of course, of any other relevant knowledge that we may possess—to *judge* whether the inference about elasticity that a mechanical treatment of them suggests can safely be drawn. A. C. Pigou

ECONOMIC THEORY AND THE PROBLEMS OF A SOCIALIST ECONOMY

It has been a common practice for economists to employ the hypothesis of a "socialist economy" as a term of comparison: a comparison which has generally been used, not to delimit economic concepts and to stress their relevance to some limited historical context, but to assert their universality. As a rule, it has been assumed that in a socialist society the main propositions of economic theory would apply with undiminished force. Obstacles and problems would remain fundamentally the same; and the differences introduced by State investment and an altered distribution of wealth would be of no different order from those which might arise in an individualist system at different times and in different places. To the economist the rise and fall of institutions are a secondary affair. A change of property-rights and of class relationships may profoundly concern the social psychologist or the creator of ethical systems, but they will alter the form of "the economic problem" hardly at all.[1]

In the past, such statements have generally been assumed unquestioned, rather than analysed and defended; and little attempt has been made to formulate the detailed corollaries which such statements imply. Yet, clearly, if they are true, such statements have very great significance, not only for practice, but in the very definition of economic concepts. In recent years a more direct practical interest in the matter has caused these propositions to be more concretely framed. The decline of the competitive system, on the one hand, and the achievements of

[1] For instance, Mr. H. D. Henderson speaks of "the existence in the economic world of an order more profound and more permanent than any of our social schemes, and equally applicable to them all," and of economic laws and relationships which "seem altogether more fundamental than our present industrial system" (*Supply and Demand*, pp. 11 and 141); while Wieser similarly declares that "the communistic state must retain the same law in force, or its economy will become chaos" (*Natural Value*, p. 164). Wieser even goes so far as to identify "natural value" with "value as it would exist in the communist state." Pareto asserts that under Socialism "commodities will be distributed according to the rules which we have discovered in our study of a régime of competition" (*Cours*, Vol. II, 364), and Cassel assures us that "new lines of economic policy, adopted by socialist reformers, which promise anything for the future, tend, so far as prices are concerned, merely to work out the classical ideal of a system of prices" (*Theory of Social Economy*, Vol. I, p. 76).

Soviet economy, on the other, have given the question a topical interest. As Mr. H. D. Dickinson has reminded us in the June issue of the ECONOMIC JOURNAL, a virtual school of writers, such as Mises and Brutzkus, has developed, declaring that a socialist economy must fail because the absence of a free market and a price-system would preclude the application of any economic criteria. Against them, others, such as Mr. Dickinson, have proclaimed the possibility of combining a socialist economy with a price-system: a combination which, it is alleged, would provide superior criteria of costs and of demand to those which rule in a capitalist world.[1] Mr. Dickinson tells us that a socialist State in the sale of finished products and in the purchase of the primary agents of products need not, and should not, act as a monopolist: it could, and should, allow these prices to be fixed, on the one hand by the competition of consumers, on the other hand by the competition of suppliers of the agents of production. In other words, it could keep sufficient competition alive (in the purchase of final products and the supply of primary agents) to maintain approximately the same system of selling-prices and of costs as would prevail (given the same distribution of income) in an individualist world. But these two parties both share a common assumption. Both assume that the categories of economic theory are equally valid in a socialist as in an individualist order. Here there is no debate between them. Yet this is an assumption that has never been fully explored.

It has become fashionable to-day to discard the hedonistic basis on which the modern theory of value was formerly supposed to rest, and to treat Economics as a non-normative theory of equilibrium. As such, it becomes something very different from the Political Economy of Adam Smith. No longer a collection of precepts in advice to the Sovereign, but a formal technique is what it supplies—a system of functional equations, a branch of applied mathematics, postulating a formal relationship between certain quantities. Professor Robbins, who has carried this contemporary fashion to its logical conclusion, explicitly emphasises the purely formal character of economic theory, without, however, seizing the full implications of the statement. Economics, as a theory of equilibrium, he points out, is unconcerned with

[1] Cf. ECONOMIC JOURNAL, XLIII, 170, pp. 237 *seq.*; also an article by Mr. H. D. Dickinson in *The Political Quarterly*, Vol. I, No. 4. A similar view has been expressed by W. C. Ropner, *The Problem of Pricing in a Socialist State*. The present writer also subscribed to this opinion, devoting a theoretical Excursus of his *Russian Economic Development* to an exposition of this claim. He now believes this view to be wrong.

norms and ends: it is concerned solely with constructing patterns for the appropriate adaptation of scarce means to given purposes. The corollaries of economic theory do not depend upon facts of experience or of history, but "are implicit in our definition of the subject-matter of Economic Science as a whole." [1] One might have thought this a sufficient definition of such corollaries as tautologies, and that propositions which contained no element of the real world could not, unaided, support judgments concerning the real world. But such an objection may, perhaps, be thought too pedantic to carry immediate persuasion.

The more formal, of course, that Economics is made, the more universal become its propositions; which might seem to imply that the equations of Cassel would have more application to a socialist economy than the more homely precepts of Adam Smith. But, in becoming more formal, such propositions have at the same time quite changed their significance. The theory of value, conceived simply as a theory of equilibrium, can postulate that, in a given set of circumstances, prices will conform to a certain pattern; in a different set of circumstances to a different pattern. It can say this, and it can say no more. It may *define* a "maximum" as consisting in one particular "pattern"; but the definition will be entirely arbitrary. It is powerless to pass judgment upon any particular arrangement of resources in the real world, and declare one arrangement to be preferable or more "economic" than another, for the reason that it has specifically excluded any assumption about the ends in view. It is powerless to *prescribe* a maximum for us. A reviewer in this JOURNAL recently complained that in a socialist economy the problem would be not that the planning authority "(would) not be able to reach a position of equilibrium, but that it (could) reach too many such positions—precisely an infinite number—and (have) no means of choice between them." [2] But this is precisely the dilemma of any pure equilibrium theory: it can give no means at all for preferring the "unique" equilibrium of an individualist economy to any of the n possible alternative equilibria that a planned economy might choose. Economic theory reduced to these dimensions provides absolutely no criterion of judgment at all.

Yet, when it comes to such judgments, the equilibrium theorist, of course, tacitly appeals to a norm. Despite his trumpetings against the welfare-economists, he in fact secretly

[1] *An Essay on the Nature and Significance of Economic Science*, p. 75.
[2] N. Kaldor, ECONOMIC JOURNAL, June 1932, p. 279.

imports an assumption which at once places him precisely on the same ground as the Hedonist whom he has pretended to disown. And in this assumption the whole apparatus of Utility and Welfare, which it was his pride to dispense with, is implied. But the manœuvre has not been for nothing: it has enabled the scientific dignity of an ethical neutrality to be combined with an undiminished capacity to deliver judgments on practical affairs. The crucial assumption is as simple as it is questionable: it amounts to the sacredness of consumers' preferences (as a general rule, and subject to unimportant exceptions here and there).[1] The virtues of "economic democracy" which it confers on a free market rest on a similar sacredness of individual choice to the virtues of Parliamentary democracy. Both operate through a convenient franchise system: in the one votes are cast by offers on a market, in the other by crosses at a polling booth. The highest economic good consists in giving the consumer what he thinks he wants, as political good consists in giving the people the government it thinks it deserves. Both conceptions are part of our bourgeois heritage from the nineteenth century. But there is no need to show that there are fallacies in the latter to demonstrate that there are fallacies in the former. The effect of the advertiser on economic choice may be taken as a fair parallel to that of the Press magnate on political opinion: both damage the sacredness of the popular verdict pretty ruthlessly; in both spheres it would seem that bad money drives out good. But in the economic sphere there is not even an approach to universal suffrage: on the contrary, a widely graded system of plural voting is the rule. Some men poll each a thousand votes to another's one. Moreover, like the old-fashioned squire, the possessors of many economic "votes" powerfully influence the verdict of the mass—they "set the pace," establish the conventions for the multitude and the standards which others strive to imitate and attain.

Mr. Dickinson would have us believe that in a socialist society the objections to the economic democracy of the market, like those to the democracy of the polls, would lose their force. But this is very far from being the case. Unless there were complete equality of reward, "plural voting" would still remain, if

[1] This is the assumption on which Marshall's structure rests. In a footnote he announces that for reasons of practical convenience he will identify "desire" with "satisfaction," and "fall back on the measurement which economics supplies of the motive or moving force to action; and to make it serve, with all its faults, *both* for the desires which prompt activities and for the satisfactions which result from them" (*Principles*, pp. 92–3).

diminished; whereas, if equality of reward prevailed, market valuations would *ipso facto* lose their alleged significance, since money costs would have no meaning. If carpenters are scarcer or more costly to train than scavengers, the market will place a higher value upon their services, and carpenters will derive a higher income and have greater "voting-power" as consumers. On the side of supply the extra "costliness" of carpenters will receive expression, but only at the expense of giving carpenters a differential "pull" as consumers, and hence of vitiating the index of demand. On the other hand, if carpenters and scavengers are to be given equal weight as consumers by assuring them equal incomes, then the extra "costliness" of carpenters will find no expression in costs of production. Here is the central dilemma. Precisely because consumers are also producers, both "costs" and "needs" are precluded from receiving simultaneous expression in the same system of market valuations. Precisely to the extent that market valuations are rendered adequate in one direction they lose their significance in the other. Mr. Dickinson cannot have it both ways.

But this is not all: this is not the only reason why a price-system under socialism might still be far from constituting a "perfect" "automatic" regulator of economic affairs. If consumers' choice under capitalism was so malleable by convention and seducible by the advertising agent, what right have we to assume that under socialism it will be supremely wise? If it was so corruptible then, why is it suddenly reliable now? Or if it needed to be "educated" then, why are we to accept the verdict of its untutored state now? If taste is mainly acquired, rather than innate, and shaped by culture and convention, as seems to be the case, there is no reason why, in a socialist order, the State should entirely abrogate the right of creating taste in favour of being its creature. In the creation of "new wants," in particular, with which economic progress is so largely concerned, the verdict of a price-system can never give more than a modicum of aid.

Even were it free of these defects, there is a serious limit to the claim of a free market system to provide an automatic index and regulator of economic relationships—a limit which affects one of the fundamental relations in economic society. For this fundamental relation between the production of immediately consumable goods and the production of capital goods it can afford no criterion. This limit, which concerns the very core of the problem of costs, is not only customarily neglected in

discussions of the subject, but is even by implication denied. If a price-system prevails, the use of property—of plant, buildings and land—will be priced, whether in a capitalist or a socialist régime. What is to be the basis of this relation between these two categories of cost—the hire of a lathe for a day and of a man's labour for a day? On the answer to this question the whole costing problem turns, and the whole "balance" between different types of industry depends. But the question receives no answer from any spontaneous verdict of a free market; since the two categories of cost are incurred by dissimilar agencies (or persons).[1] Neither is it answered in a socialist any more than in a capitalist economy. In a capitalist society the two classes of productive agencies are supplied by two distinct social classes; and the pricing of property depends upon the level of wages (*i.e.* the supply-price of labour) relative to productivity, modified by the rate of saving. In a socialist society property will be in the hands of the State, and this fundamental cost-relation will, of necessity, be determined *a priori* by the decisions of the State as to the proportion of resources to be devoted to the production of consumable goods and of capital goods. That a free market can and must provide the criterion as to what this relation should be is a common illusion—an illusion which seems to lie behind a great deal of the talk about a "natural" rate of interest, particularly of the "necessity" of being ruled by this "natural" rate in a socialist community. In a socialist society there is no excuse for the illusion. The relation is clearly a determining, not a determined, factor in the market system. In a socialist society the rate of interest, the level of wages and the distribution of resources between constructional and finishing trades are all elements in a single decision taken by the State as to the distribution of resources between present and future. They are each constituent parts of that decision, not conditioning influences over it. Here least of all can any appeal be made to "economic voting"—an appeal to the time-preferences of separate individuals; for, in judgment of the future the "natural" individual is notoriously unreliable.

But it may be urged: assuming that a given rate of time-preference and a given scale of need are postulated, will there not still remain the question of attaining a maximum relative to these postulated conditions? Will not the "principle of

[1] In the manner in which equilibrium theory is usually stated there is assumed to be a complete formal parallelism between demand and supply. But this formal treatment neglects this very significant difference of fact.

least cost" require that resources are distributed strictly according to a certain pattern, and anything which does not conform to this pattern be characterised as "uneconomic"? In other words, must not the principle of equalising the marginal yield of capital in all uses have sway? Mr. Dickinson takes it as axiomatic that "equilibrium" must be obtained "by pushing the investment of resources up to the same number of years' purchase in all lines of production."

Let us for the moment admit that such a principle must rule, and inquire what this in practice must imply. To secure this ideal distribution of resources, it would certainly be necessary to express the priority of different needs, on the one hand, and to express costs, on the other hand, in terms of some common denominator—to reduce qualitative preferences to some quantitative scale. ("Costs" would here need to include "costs" conventionally assigned to all scarce resources, including for instance land.) It is also true that this would require some system of centralised economic accounting as a basis for the decisions of economic planning bodies. But it would by no means necessitate the operation of a free market system to afford the automatic "index" of economic priority. There is no warrant for assuming that the index which a free market would provide would be preferable to what could be constructed in other ways: as has been suggested above, there is reason to think that it would be definitely inferior. Moreover, it would seem as though the allocation of certain types of resources, such as urban sites and building accommodation, education, research, health and recreational facilities, might adequately be made without any very complex calculations (as, indeed, happens with a number of such things to-day).

Even so, has this matter of achieving a relative maximum such prime importance, after all? Even admitting it to have *some* importance, has it at any rate that priority of importance which the professional pride of economists is wont to assign to it? What is lost by failing to attain this maximum may well be of a lower order than the probable error in any scale of economic priorities, established by a free market or in any other way. But there is a doubt which goes deeper than this. To closer examination it is not at all clear, when one has attained this desired allocation of resources, what it is that has been maximised; and one is tempted to the suspicion that to strive after such a maximum is very like looking in a dark room for a black hat that may be entirely subjective, after all. Let us

suppose that a Socialist State has postulated a certain rate of time-preference as keynote to its capital investment policy. The economic maximum of which we have spoken requires that this should be *consistently* applied throughout the whole economic system. But let us suppose that the planning authorities do not apply it consistently in all directions—that they finance technical advance in certain directions more liberally than in others; that they put lifts in some office buildings and not in others; that they instal a conveyor system in the boot manufacture of one locality, but not in neighbouring woollen clothing factories; that they use tractors and combine-harvesters on the wheat-farms of one district and allow the rye-farms of another district to be harvested by the old-fashioned horse-reaper and binder. This seems to amount to the fact that activities in certain branches of the economic system are being controlled by a different rate of time-discount from others. If this were an inconsistency in rates of development likely to be cumulative or to persist *ad infinitum*, a case might perhaps be made out against such favouritism. But if it is something which will be adjusted in the course of time, what precisely is the economic loss occasioned by the temporary divergence? True, in certain cases the divergence of technical development may offend against what one may call the *technical* rigidities of the economic system; as, for instance, if the requisite ratio between coal-cutters and coal-trucks is not observed, or if there are tractors on every farm but no motor-lorries for transport between farm and railhead. But these are matters which the layman could most easily adjust without the intervention of any principle about equalising marginal yield. The "economic loss" which is the economist's concern—which is assumed to result from violating this principle of equal marginal yield—is something in addition to such technical maladjustments, and claims the right to exist in their absence. If one is willing to use the concept of Utility, one can presumably define such loss, as "loss of utilities through time." Yet to give such a definition any precise meaning, do we not require some objective standard of time-preference, which is just what economic theory does not afford us? Alternatively, one can presumably define such loss as the fact that the present value-product of finished goods will be less than it might have been, had the existing stock of capital-instruments been differently distributed. But since capital accumulation essentially implies the sacrifice of present values for future values, it seems hard to give to such a definition much

concrete significance. To introduce the fact of new investment is to introduce a factor of change; and with such change in the real world come changed costs and also changing demands (new wants and changed conventions). To apply dogmatically the postulates of a static equilibrium to such a continually moving situation would seem a particularly barren feat of abstraction. The more rapid the rate of capital accumulation, the more meaningless the abstraction. The proposition that the stable position for a horse is when its four feet are firmly planted on the ground would be remarkably little use as a basis for training Derby-winners.

There seems to be one reason in particular why a socialist State should observe, not one equality of net marginal yield, but an alternative rule as the principle of capital investment. This reason, which has been pointed out to me by Mr. Sraffa, is concerned with the fact of obsolescence and of uncertainties arising from technical innovation which waits upon a fall of interest-rates to bring it to birth. It is a commonplace that technical progress does not merely supplement existing equipment, but renders a good deal of it obsolete; and consequently every new phase of capital accumulation, resulting, as it tends to do, in lengthened processes of production, renders obsolete a large part of the older and shorter processes of production. Where the rate of capital accumulation is low and the length of life of material equipment is short, the resulting wastage is not serious. But when periods of very rapid capital accumulation coincide with technical epochs in economic history (as during the industrial revolution; in Soviet Russia; and possibly to a smaller extent in the rest of the contemporary world), the wastage which occurs from the scrapping of plant and of the old localised economic units will be abnormally large. In an individualist economy it would seem that the result of a future fall in the rate of interest, as the result of the growth of capital accumulation, is seldom adequately discounted by investors or *entrepreneurs* (a fact to which recurring crises may well be witness). At least, such discount as is made tends to be based on rule-of-thumb generalisation from the immediate past (*e.g.* amortisation allowances) which does not allow for any abnormal bursts of obsolescence, such as, for instance, has probably marked the last fifteen years. But to the extent that such changes could be foreseen, as they could with some approximation in a planned economy, it would be economical to invest in the new technical processes in advance of that fall in the interest-rate which would

later render them profitable: in other words, to violate the principle of equimarginal returns and apply a *different* time-discount to different sections of an industry and of the economic system, investing part of the available capital resources in ways which yield, not the normal interest-rate of to-day, but what will be the normal rate, say, ten or twenty years from now. The advantage would consist in the lower obsolescence and the longer term of usefulness of the plant. To take a fanciful example: if one did not realise that in five years' time one would be rich enough to build a palace, one might build oneself a house, destined later to become redundant. But if one had been able to forecast the windfall of five years hence, it would have paid one to forego the house and live in a bungalow in the interim, and with the difference commence to lay the foundations of the palace.

This can be graphically illustrated in the analogy of the "pursuit-curve." A dog is situated at right angles to the path along which his master is bicycling. The dog is running towards his master, and, influenced by a simple conditioned reflex, runs always in the direction of his master at the given moment; with the result that his path in pursuit of his master is a curve. But if the dog could have acted on forethought and calculation, he would have taken a straight line to the point along the path which his master would presently reach. A planned economy, it would seem, should take a similar straight line towards a technical level of the future; and the ultimate economising of capital to produce a given result (or, conversely, the more rapid rate of technical advance financed by a given rate of investment) will be the difference in length between the straight line and the curve.[1]

I am conscious that what I have said has been mainly of a negative order. But, as Kant observed, negative may be as significant as positive conclusions in setting thought on to new paths. Yet I do not wish to follow Kant and "limit knowledge in order to make way for faith." Planned economy will have its economic laws, as has *laissez-faire* economy; it will have its economic accounting and its calculation. But until we have

[1] This principle will apply, not only inside a particular industry, but also to the structure of the whole economic system in its balance between consumption industries and constructional trades. This would suggest that capital in the latter should always be in forms with a lower capital-yield than capital in the former. It is interesting in this connection to note the habit in Soviet economy for some years of deliberately subsidising "heavy industry" out of the profits of the lighter finishing trades.

cleared the site of débris, we cannot commence to dig foundations; and until we have discarded the false analogies which confuse the question, economists and their analyses are likely to shed more obscurity than enlightenment. Interest in the question, moreover, is not solely topical. Because of the light which it throws on the significance of economic concepts, the issue may well be a crucial one, on which the whole future of economic theory may turn.

MAURICE DOBB

THE PERIOD OF PRODUCTION AND INDUSTRIAL FLUCTUATIONS

PROF. HAYEK and other writers of the Viennese School, whose work represents, I believe, an important contribution to our understanding of certain aspects of industrial fluctuations, have sought to explain such fluctuations in terms of Böhm-Bawerk's theory of Capital, notably in terms of variations in the length of the average period of production.[1] This attempt has been freely criticised in details.[2] But, as far as I am aware, no examination has yet been made of the central problem whether the Böhm-Bawerkian categories are really applicable to short-run phenomena. These notes, which deal specifically with Böhm's time-concepts, are intended as a contribution to such a study.

I

Böhm's[3] conception of the nature of the average period of production and the part it plays in his theory of capital may be seen from the following summary of that theory.[4]

The essential function of capital is to allow time to elapse between the beginning and the end of productive processes. It is a fact to which experience amply testifies that the yield of a

[1] Hayek, "Prices and Production," London, 1931. Article on "Kapitalaufzehrung" (Capital Consumption) in *Weltwirtschaftliches Archiv*. Bd. 36, 1932. Among other important works on this subject by Viennese writers may be mentioned: Mises, *Theorie des Geldes und der Umlaufsmittel*, 2nd edition, Münich, 1924. Machlup, *Börsenkredit, Industriekredit und Kapitalbildung*, Vienna, 1932. Schiff, *Kapitalbildung und Kapitalaufzehrung*, Vienna, 1933.

[2] Cf. A. H. Hanson and H. Tout, "Investment and Saving in Business Cycle Theory," *Econometrica*, April, 1933.

[3] On Böhm-Bawerk's version of the theory of Capital, the work of Wicksell and the modern Austrian School is directly based. It should be noted, however, that almost every element in Böhm's exposition is to be found in previous writings; and he added little except clarity to that of Carl Menger. An analysis of the relationship between amount of capital, period of production and magnitude of final product plays a considerable part in Jevons's *Theory of Political Economy*, and in the second volume of Marx's *Capital* the various kinds of time-factor—periods of production, of turn-over, of circulation, etc.—are exhaustively treated. For the development of the theory of the roundabout processes of production Rodbertus was responsible.

[4] The principal passages in the *Positive Theorie des Kapitals* dealing with the period of production are to be found on pp. 17–21, 117–121, 4th edition, Jena, 1921, and in Exkurse I, II and V.

given outlay of original means of production can be increased by the adoption of wisely chosen roundabout processes of production or, what is the same thing, by applying current resources to satisfy the needs of a more distant future. Roundabout processes of production is a synonym for the capitalistic structure of production (to be distinguished, of course, from the capitalistic organisation of society), and capital is defined as the aggregate of the "intermediate products" which appear on the several stages of the roundabout journey.[1]

In this picture there is no place for the distinction between fixed and circulating capital: all intermediate products are regarded as passing more or less quickly into consumers' goods. An abstract grouping of existing goods of all kinds can be made according to distance in time from the consumer.[2] The maintenance of this time-grouping is equivalent to the maintenance of capital or stationary conditions. Production becomes more capitalistic as the proportion of the more distant time-groups increases.

An alternative index of the structure of production and measure of "Capital per head"—one used far more frequently by Böhm-Bawerk—is the average period of production.

This concept is derived from that of the average production period of a single consumption good, which is the average time elapsing between the successive doses of original factors of production[3] required for the gestation of the good (including, of course, the original labour spent on the manufacture of machines, the mining of ore, etc., *ad infinitum*) and its completion. A simple example is given.[4] If the production of a commodity requires in all 100 days of labour, of which one day was spent 10 years before completion of the commodity, another 9 years before, others respectively 8, 7, 6, 5, 4, 3, 2 and 1 years before, while the remaining 90 days were expended immediately before the completion, its average production period is

$$\frac{10+9+8+7+6+5+4+3+2+1+0}{100} = \frac{55}{100} \text{ years,}$$

or just over half a year.

[1] *Positive Theorie*, p. 16. When dealing with interest, Böhm treats capita in the Jevonian manner as a Subsistence Fund.

[2] *Ibid.*, Bk. II, Ch. IV, pp. 136 *sqq.*

[3] In the Austrian theory of capital land and labour are considered as the original factors of production. Böhm omits land for the sake of simplicity in the development of the foregoing argument. Wicksell completes Böhm's theory by introducing land, but this does not alter the argument in fundamentals.

[4] *Positive Theorie*, p. 118.

A lengthening of the average production period does not necessarily mean any lengthening of the time between the first and last applications of resources (the absolute production period), but merely an increase in the proportionate expenditure of resources at the earlier stages, or, in other words, an increase in capital used.[1]

The general average-production period would be determined in accordance with the simple formula given above. A lengthening of this period, which is identified with production with more capital per head and the adoption of more roundabout methods of production, was considered by Böhm to be the normal condition of progress. For apart from "inventions" there is no means of increasing the consumable product of given resources (*i.e.* the national dividend) except by making them work for a more distant future.

II

The average period of production in the above sense looks to the past: it is the average period between the beginning and the end of the processes by which the present output of consumption goods has been produced. In this sense, a change in the period means a change in the proportion of past labour working with present labour, which is, by the definition of capital, equal to a change in the amount of capital per head. The average period prevailing at any moment would be determined by the dates at which the original doses of labour which have contributed to produce the present supply of consumption goods were applied.

But the "period" is also conceived as looking to the future[2]: as the average period elapsing between the application of present labour and the completion of its final consumable product.[3]

[1] Mr. Fisher writes (ECONOMIC JOURNAL, September 1933) that the general average production period would not necessarily be lengthened even if the average period of each commodity were simultaneously lengthened. This is to me unintelligible. If all the individual periods are extended, the average must also rise. The "relative importance of the items whose sizes increase" is surely irrelevant.

[2] This distinction was, I believe, first drawn in an article by F. Burkhardt referred to again below: "Die Schemata des Stationären Kreislaufs bei Böhm-Bawerk und Marx," *Weltwirtschaftliches Archiv*, Bd. 34, 1931. In a recent article entitled "Capital and Fluctuations" (to be published shortly in *Econometrica*), which I have had the opportunity of seeing in manuscript, Prof. Hayek distinguishes between a completed and an uncompleted structure of production, and points out very clearly the conditions required for the completion of processes begun and for the maintenance of a stable "structure of production." This article, which is a valuable amplification of Prof. Hayek's argument as set forth in *Prices and Production*, does not, however, touch the main problem with which these notes are concerned.

[3] *Positive Theorie*, p. 120.

Böhm writes, "The more capitalistic production is, the smaller the proportion of total original resources available in a given year whose product is consumed in that year."[1] In this sense the average production period would be measured on the following lines: in the simple case of a tool required at a final stage of production (*e.g.* the awl of a cobbler), produced in a day and expected to make a uniform productive contribution for 5 years, the average period of production in respect of the original factors which produced the tool would be $2\frac{1}{2}$ years.

It is this forward-looking or anticipated average period of production (which corresponds to Jevons's *Time of Investment*)[2] that is relevant to the theory of interest and the generalised theory of marginal productivity.[3] Starting from the propositions that the longer the period for which resources are invested the greater the final product, and that with each unitary extension of this period there is a decline in the increment of product secured (the theory of the *Mehrergiebigkeit der Umwege*), Böhm conceived pure interest on capital as determined by the product of the last period-extension which the available supply of capital renders possible. Capital in this context is, of course, "capital-disposal" or free capital, of which the "real" counterpart is the subsistence-fund.[4] The market-rate of interest regulates the production (investment) period, a lowering of the rate involving an extension, a raising a contraction of that period. But the normal (equilibrium) rate of interest and the production period are both dependent on other factors. In the famous chapter of the *Positive Theorie* entitled "Der Kapitalmarkt in voller Entfaltung" (Bk. IV, Chapter III) Böhm shows how, given capital (subsistence-fund) available for investment, numbers of workers and the relative productivity of their labour invested for different periods, both the length of the

[1] *Positive Theorie*, p. 120.

[2] Jevons, *Theory of Political Economy*, 4th edition, London, 1911, Ch. VII. I have used the term "anticipated production period" in the following argument in order the better to emphasise a distinction which is irrelevant to the purpose for which the concept of an investment period is generally used.

[3] To be exact, the relevant time-factor is the waiting-period (*Wartezeit*)—*i.e.* the time between the payment of labour and the sale of its product. The standard exposition of the rôle of the time-factor in the theory of the marginal productivity of capital is that of Wicksell, *Vorlesungen über Nationaloekonomie*, Vol. I, pp. 211 *sqq.*

[4] The subsistence-fund, as conceived by Böhm-Bawerk, covers not only the existing stock of consumption-goods which are destined for payment to the original factors of production, but also the whole stock of intermediate goods, which are a potential source of consumption goods. Thus the subsistence-fund would allow society to "subsist" for a time, even if the replacement of capital goods, as they turn into consumption goods, were to cease entirely.

production (investment) period and the rate of interest are simultaneously determined.

To recapitulate the distinction which I have endeavoured to draw in the present section. Böhm uses the average production period in both of the following senses: (1) as the "time" which results from tracing the dates at which the original factors contributed in the past to produce the present output of consumption goods; and (2) as that which results from considering at what time in the future the product of the present stock of resources will emerge in consumable form.

III

For the description of "timeless" relationships and for the purpose of the general theory which deals with the slow changes in the time-structure of production accompanying the secular accumulation of capital, the distinction between these two senses of the average production period is of no consequence, for although the "periods" yielded by the two methods of reckoning may not be of identical length, their behaviour will correspond. But over the short period this will often not be true. And I believe that in the analysis of short-period changes confusion is inevitable unless the two senses are clearly distinguished.

In conditions other than of stationary equilibrium the relations between the two senses of the average production period, which for the sake of convenience will here be called the anticipated and completed periods, would seem to be as follows.

A lengthening or a shortening of the first period must always precede any corresponding change in the second, for new processes take time to complete and put into operation, and once in operation are not immediately abandoned when investment activity declines.

Starting from an equilibrium position, assuming the completion of all new processes begun, a lengthening of the anticipated period —which in these conditions must represent net saving—would, of course, be followed after a time by an exactly equal lengthening of the completed period. And *mutatis mutandis* a decline in the former period would be eventually followed by an exactly corresponding decline in the latter. But anticipations are not always fulfilled—this, indeed, is the latent tragedy of the boom. And if one abandons equilibrium assumptions, the two average periods do not even necessarily follow one another. It is quite possible that at the beginning of a depression, when the anticipated period

rapidly contracts, the completed period might be lengthened as a result, first, of the completion of some of the roundabout processes begun during the boom, and secondly, of the increase in the average age of fixed capital due to the suspension or reduction of replacement.[1] Again, at the trough of a depression the anticipated period normally stands below the level necessary to maintain the existing processes and the capital required for these processes is being "consumed." The anticipated period can in these circumstances rise temporarily above the equilibrium level until capital has been replaced (falling thereafter to that equilibrium level) without initiating any lengthening of the completed period. Similarly, from the peak of the boom it can fall temporarily below the level of the prevailing completed period without instigating a fall in the latter.

In "Prices and Production" (Chs. II and III) and elsewhere Prof. Hayek maintains, in brief, that through the expansion of credit the average period of production is lengthened during the boom further than it can be permanently maintained, and that the crisis represents the inevitable subsequent transition to a shorter "period." It is clear from the argument developed above that the time-element, the fluctuations of which are characteristic of the trade cycle, is the anticipated and not the completed period. The advance in the first during the boom would appear to represent partly (and particularly in the early stages of the boom) the replacement of the capital required for the existing processes of production and partly perhaps an attempt to lengthen the roundabout processes of production. This anticipation may be falsified (1) through time-saving invention [2] and (2)

[1] Hayek shows in his forthcoming article on "Capital and Fluctuations" that the structure of production must contract if "free capital" declines more rapidly than the need for it for the purpose of completing processes under way. This is, of course, not in contradiction with the above argument.

[2] Time-saving should here be understood not in its usual technological sense (as used *e.g.* by Cassel), but as synonymous with capital-saving. In this sense an invention may be regarded as "capital-saving," from the point of view of the horizontal analysis of coefficients of production, where capital is treated as co-ordinate with the other two factors, and as "time-saving" from the point of view of the vertical distribution of resources as measured by the "period of production." Whether an investment which saves time in the turnover of goods in a technical sense, but requires more capital equipment, lengthens or shortens the "period of production" depends on the relations between the amount of time saved on the turnover, the amount of the new capital and the stage of production at which it is introduced. Strictly in accordance with Böhm's general position, the adoption of time or capital-saving inventions would have no effect on the average time-factor, since the "Capital" released by the invention would be invested elsewhere and "Capital per head" left unchanged. But Böhm appears sometimes to have held the opposite opinion. In the

as a result of the ensuing crisis. The contraction of the anticipated period in the depression represents perhaps the abandonment of some processes begun, but essentially a temporary halt in the secular accumulation of capital. After a long depression a shortening of the completed period is likely, for time-saving invention will continue and the capital "released" remain uninvested; and after a long period of investment activity it may be expected to expand. But short-term changes in this "period" are neither an essential condition nor even a characteristic feature of industrial fluctuations.

IV

In accordance with Böhm-Bawerk's propositions, Prof. Hayek identifies a short-term contraction of the period of production during a depression with a transition to less capitalistic (or less roundabout) methods (or processes) of production and also with a decline in "capital per head."

It is generally agreed that the actual methods or processes by which commodities are continuously being produced show scarcely any tendency to become more direct during a depression. Prof. Hayek would maintain, however, that "a transition to less roundabout methods" refers to the disposal of resources and not to the methods of production in the ordinary sense of the term. In the depression, the investment of resources in "long" processes declines and consequently the proportion of total resources employed on "short" processes rises.[1] Production is thus said to become less roundabout even if there be no change in the technique of production.

With the onset of a depression there will be a loss of capital per head in several senses. Fixed capital will fall in value owing to the decline in prospective quasi-rents.[2] Part of this fixed

Positive Theorie, Exkurs, I, p. 6, for example, he points to the undisputed fact of a secular increase in capital per head not only as proof of a secular lengthening of the period, but also as an argument for the greater frequency of time-increasing than time-saving inventions.

[1] A decline in the Investment period will, of course, be accompanied by a corresponding change in the time structure of intermediate goods, or, in Prof. Hayek's terminology, in the "Structure of Production"; for circulating capital and the labour working it up are turned into commodities at the same time. But owing to the existence of fixed capital, the structure of production will not contract as rapidly as the anticipated production period. The average time in which existing specific capital-goods (roads and bridges, locomotives, factories and so forth) "pass into consumers' goods" is not likely to change appreciably over a short period.

[2] Prof. Hayek writes: "The best-equipped factory . . . can suddenly lose its value as a result of changes in the price-structure and *thus cease to be capital.*" Article on "Capital Consumption," *Weltwirtschaftliches Archiv*, Bd. 36, 1932.

capital will lose its "economic significance" in consequence of misdirection of capital in the boom period, and may suffer physical deterioration through failure to make normal replacement. There will be a contraction of "free capital" or the "subsistence fund." But that there will be a loss in capital per head in the sense of a decrease in the proportion of past labour co-operating with present labour would seem to be very doubtful. How a decline in capital in this sense could be measured I do not pretend to know—the conception is, indeed, rather obscure—but it is conceivable that the common-sense criterion—namely, in terms of the physical capital equipment of the labour in employment—would be least incompatible with Böhm-Bawerk's general reasoning.[1]

To speak of a transition to less capitalistic methods when actual technological methods remain the same and of a loss of capital when capital equipment is unimpaired and capital is defined as the physical "aggregate of intermediate goods," might be criticised as a perverse use of terms. This usage can, of course, be derived from the *Positive Theorie*: it is nevertheless misleading and its justification questionable.

In the conditions assumed by Böhm-Bawerk these dichotomies do not exist; a lengthening of the "period" means greater roundaboutness both of existing methods and of methods initiated; more capital per head, both more past labour and more "subsistence fund." To use only one of the two meanings which each of these concepts bears in the short-period is to suggest relationships which do not exist.

Böhm's concepts were not intended for use in short-period analysis nor do they seem to lend themselves to it. Böhm considers only the secular process of capital-accumulation and never discusses the complex implications of capital loss. He elaborates his argument on the assumption of equilibrium conditions and then

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According to the Austrian view this loss in value is followed inevitably by a physical deterioration, for it will not be profitable to maintain the old amortisation quotas (see Schiff, *Kapitalbildung und Kapitalaufzehrung*, Vienna 1933). It is this physical deterioration rather than the loss in value which is held to constitute "Capital consumption" in the long and medium run. But in the short run, a loss in the value of fixed capital may well be accompanied by maintenance of amortisation quotas at the old scale; and from one crisis to another it is true to say of the great bulk of fixed capital that its value is mislaid rather than lost. This problem of the short-run measure of fixed capital, which is obscured by the neglect of a consistent distinction between different forms of capital, has not yet been dealt with satisfactorily.

[1] This is, I think, supported by his views referred to below regarding the effect of a forcible increase in wages on "Capital per head" and the period of production.

argues, at great length though not always convincingly,[1] that the conclusions reached tally roughly with the long-run phenomena of real life. Whether or not this claim is justified is immaterial to the present argument; what is of importance is the fact that the only form of capital increase which Böhm considered—namely, a greater roundaboutness of production due to the shift in the time-distribution of a given supply of resources—would seem to have little direct relevance to that which is characteristic of a normal trade-cycle "boom," in which unused resources are absorbed and technical improvements introduced. Finally, Böhm considers only the relationship between successive positions of equilibrium. The economics of transition find no place in his system. Distinctions such as those which I have drawn above—between completed period and anticipated period, processes in operation and processes begun—were of no interest to him. It is this above all that renders any attempt to apply his concepts to the study of short-run fluctuations inevitably confusing.

V

It would seem to be impossible not only to fit the phenomena of the trade-cycle within the categories of the theory of capital, but also to predict the reaction of "capital per head" or the time-factor [2] to any disturbance which upsets equilibrium. To the relatively simple question how the average production period normally behaves in the event of wages being held or forced above their equilibrium level, Böhm-Bawerk and Prof. Hayek give diametrically opposite replies. Böhm-Bawerk [3] considered that uneconomically high wages lead to the *lengthening* of the "period," as entrepreneurs are driven to employ fewer men and more machines, thereby increasing capital per person employed. Prof Hayek,[4] on the other hand, argues that they normally lead to an increase in the relative amount of resources employed in the lower stages

[1] For example, Böhm emphasises the point that more capital leads to greater productivity only when the capital investment is "well chosen"—a statement which is clearly tautological, since "well chosen" can here mean nothing else than "more productive." Cf. Birck, article entitled "Moderne Scholastik" in *Weltwirtschaftliches Archiv*, Bd. 24, 1926.

[2] The distinction between anticipated and completed periods is here irrelevant.

[3] Article entitled "Macht oder Oekonomisches Gesetz?" in the *Zeitschrift für Volkswirtschaft, Sozialpolitik und Verwaltung*, Bd. XXIII, 1914. Wicksell was of the same opinion (*Finanztheoretische Untersuchungen*, p. 27). That capital per head tends to increase when a rise in wages makes capital cheap in comparison with labour was pointed out by Ricardo (*Principles*, I. V.).

[4] Article on "Capital Consumption," *Weltwirtschaftliches Archiv*, Bd. 36, 1932.

of production, and thus to a *shortening* of the "period." It would seem, in fact, that both tendencies are likely to operate, though which will predominate it is impossible to determine *a priori*. The tendency towards "more capital per head" will be offset by a contraction of total production owing to the disturbance of equilibrium; this contraction tending to affect the "higher" industries (the demand for which is derived) more than the "lower." Further, workers thrown out of employment must be maintained; the money required for unemployment relief will, under certain conditions (depending on the elasticity of demand for labour), be drawn from the Subsistence fund.

Thus Capital consumption need not be accompanied by a shortening of the time-factor, for "capital per person employed" need not contract. Similarly, it is doubtful whether short-term fluctuations can be expressed in terms of changes in the time-factor (the anticipated production period), which, though characteristic, do not appear to be essential conditions of such fluctuations.[1] A decline in the relative activity of investment industries might be accompanied by a lengthening of the anticipated period (*e.g.* if a programme of very long-term public works were introduced to offset in part unemployment in "shorter" investment industries, such as shipbuilding and mechanical engineering); again in an investment boom connected with the introduction of capital-saving inventions, the change in the "vertical" distribution of resources between investment and consumption industries might well be offset by a shortening of the "longer" processes.

Prof. Hayek's theory of crises is built up on the basis of a series of *ceteris paribus* propositions which, I have suggested above, would seem to correspond ill with the characteristic conditions of such fluctuations. And even if they were to correspond to those conditions, it would seem rash to draw conclusions from premisses which may be falsified by conscious human action of the kind just mentioned or by imponderable psychological reactions.

VI

It is impossible to discuss here the significance of Böhm's use of the time-factor or the difficulties which the thesis that the lengthening of the period of production or investment is the normal condition of economic progress inevitably encounters.[2]

[1] This statement is not in contradiction with the thesis that changes in the relative demand for investment and consumption goods are an essential element of trade-cycle fluctuations.

[2] On this point see A. G. B. Fisher, "Capital and the Growth of Knowledge," ECONOMIC JOURNAL, September 1933.

These questions were the subject of much controversy [1] in the generation following the publication of the *Positive Theorie.* Criticism turned partly on misunderstanding (this is true especially of certain Anglo-American critics); but it also arose partly from the defects of the central time-concept itself and from the genuine difficulty of fitting Böhm's highly abstract system to the conditions of real life. For a time, interest in these matters seems to have died down; but two years ago there appeared in the *Weltwirtschaftliches Archiv* an article which represents by far the most thorough and penetrating analysis of Böhm's time-concepts yet published. This article, to which I can add nothing, I will merely refer to here.[2]

A few remarks on the limitations inherent in these time-concepts may, however, be offered.

Böhm uses the production period as an index of the "intensity of capital" or "capital per head"; but the index itself cannot be determined. Even if it were practically possible to discover the times at which the original units of labour which have contributed to the existing stock of capital were applied, there would remain the insoluble theoretical problem—encountered also in the labour theory of value—of establishing the relative contributions made by these units.

Again, the range over which this measure can be applied is strictly limited. The ultimate units of labour on which the period of production depends are not comparable over any considerable intervals of time or as between different places. The average period obtained by digging back into the distant past is in each country partly a historical accident—a country with an old civilisation would have a longer "period" than a new country with an identical industrial structure. A century ago the "average period" represented by a given value of capital (or, to avoid unnecessary difficulties, "structure of production") would be far greater than to-day.

Wicksell referred to Böhm's period of production as "a rather vague concept and one which cannot even be precisely defined." [3] He uses in preference Jevons's Time of Investment or the invest-

[1] Among the more important criticisms in English were the following: Cassel, *Nature and Necessity of Interest*, London, 1903; Fetter, "The Roundabout Processes in the Theory of Interest," *Quarterly Journal of Economics*, November 1902; Fisher, *The Rate of Interest*, New York, 1907; Davenport, *Value and Distribution*, Chicago, 1908, pp. 189–216; Taussig, "Capital, Interest and Diminishing Returns," *Quarterly Journal of Economics*, May 1908.

[2] F. Burkhardt, *op. cit.*

[3] *Finanztheoretische Untersuchungen*, Jena, 1896, p. 30.

ment period, which is free from such defects. This time-concept, the short-period changes in which are synonymous with changes in the "anticipated production period," nevertheless offers difficulties of its own if used outside the limited field of interest theory. It is by its nature hypothetical, representing an average of anticipations which may not be realised. And its very conception postulates the fiction that the period for which investments are made can be anticipated. But how in fact can one anticipate the period for which miners or farm-labourers, for example, are working when the ultimate distribution of the coal now being raised between industrial and household uses and the age at which the existing stock will be slaughtered are unknown? One must conclude that the best-conceived policy of maintaining the investment period constant would not obviate variation in completed investment periods.

A word may be added regarding the fallibility of the customary statistical criteria of changes in the investment anticipated or production period.

Such changes may imply a redistribution of resources between industries which would be reflected in statistics of employment, output, etc., in the industries concerned. But they may involve merely shifts between longer and shorter processes in the same industry or industries [1] or changes in the period for which certain industries are working, without a change in the absolute or relative amount of resources used. In such cases, the change in the period would not be reflected in statistical series relating to the activity of the industries concerned.

In the case of pronounced long and medium-run fluctuations of the trade-cycle type it may be assumed that the investment period (or anticipated production period) moves in accordance with the customary statistical indexes; but, as pointed out in Section III above, even in the medium-run it is conceivable, and in the very short-run it is quite probable, that no such correlation may exist.

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[1] This point is made by Haberler in his contribution to the Spiethoff Festgabe, *Der Stand und die nächste Zukunft der Konjunkturforschung*, München, 1933, pp. 98, 99.

THE CONCEPT OF THE LENGTH OF THE PERIOD OF PRODUCTION

It is now over two years since Mr. Keynes published *A Treatise on Money*; and in that time he has had to face severe criticism and competition from Dr. Hayek, Dr. Haberler, and their friends at the London School of Economics. This paper is intended to provide a background for the alternative theory propounded by Mr. Keynes' critics. In that theory there bulk large the concepts of "the length of the period of production," "the length of the productive process," "more or less roundabout methods of production"; but the reader will search in vain for a precise definition of these notions. It is the purpose of this paper to supply his need. It will provide (1) an exact definition of the length of the period of production, (2) a formula for the cost of a commodity in which the length of the period of production appears explicitly, (3) a formula expressing the relationship which holds between the rate of interest and the length of the period of production; and will attempt finally to distinguish between those situations to which the concept can and those to which it cannot usefully be applied.

Certain assumptions and limitations must be set out first.

(*a*) We shall be concerned only with consumers' goods. By these I mean all goods, whatever their durability, which are for the enjoyment of the ultimate consumer, and no others. From this it is a natural corollary that we may abstract from the number of times a commodity changes hands during the process of production, which will be assumed to be completely integrated.

(*b*) I shall assume that the community's property at any time can be reduced to the property existing at any previous time and the organised labour applied to it in the interval; and shall then make the further simplifying assumption that if the previous time be chosen far enough back, the property then existing may be ignored. For it would seem reasonable to suppose that light can be thrown on the economic organisation of a country to-day even if we neglect the wealth possessed by its inhabitants in 1250 B.C. In the language of classical economics, I shall abstract from "land" and replace the concept of "capital" with that of "organisation of labour." As an illustration, the phrase "different proportions of labour and capital" will be superseded by "different organisations of labour." In short, the argument

will be stated in terms more sympathetic to a labour-theory of value than to the classical scheme.

(c). Since, as will appear more clearly later, to each organisation of labour corresponds a definite length of the period of production, the latter concept cannot be defined with reference to a progressive community where the organisation of labour is continually changing. The analysis which follows must therefore be interpreted with reference to a community whose technical knowledge remains unchanged though its population need not be constant.

We are now in a position to proceed to our definitions.

(1) For convenience I shall speak of a particular consumers' good, the *Chocolate*.

(2) *A Unit of Labour* is defined as equal to a unit of population (*i.e.*, one man) multiplied by a unit of time. This involves either assuming that all men are equally remunerated for equally valuable work, or else reckoning an entrepreneur who receives n times the remuneration of an unskilled labourer to be equal to n units of population. The reader may choose for himself the construction he prefers. As we have decided to ignore payments for original and indestructible factors of production such as land, the expenses of production can be resolved into payments to labour and the interest on them that accumulates between the time when the payments are made and the time that the article is finished and sold.

(3) R = *The Length of the Period of Production*, and
L = *Total Labour Cost of a Chocolate*

may be defined as follows :[1]

Let V be the number of men working per unit of time at time $t-x$ on a chocolate finished at time t. Then we have by definition

$$L = \int_0^\infty V dx \text{ and } R = \frac{\int_0^\infty Vx dx}{\int_0^\infty V dx}$$

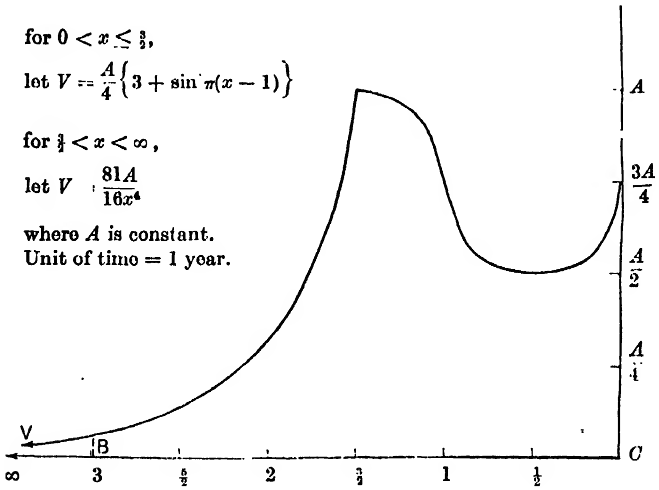
R may thus be described as the " average delay period " between the time when the labour was expended and the time when the finished chocolate emerged from the productive process.[2]

[1] For this definition I am indebted to Professor J. B. S. Haldane.

[2] We have here defined the length of the period of production for a particular commodity. An expression for R, the (average) length of the period of production over the whole of industry, can be obtained by constructing a suitable index-number from the values $R_1R_2R_3$ . . . found for the individual commodities. Philosophers who wish to attach some " real meaning " to this construction are likely to be disappointed; but it will have the convenience, as well as the limitations, of any statistical average.

Each value of V represents a particular organisation of labour; and it may be well to add in explanation that if, in a unit of time at time X, B men are employed on a machine which helps to make N chocolates, then we regard $\frac{B}{N}$ units of labour as having been expended on each of these chocolates at time X.

Since the opinion is widely held among economists that the length of the period of production is a meaningless concept, or at least that, because it depends on a reduction of existing capital to past labour, it must necessarily be infinite, I give here an example of how my definitions work out for a particular value of V.



Apart from the discontinuity at $x = \frac{3}{2}$, such a curve would not be wholly unrealistic where production was carried on under conditions of large initial expenditure on fixed capital and high retail costs. B may be thought of as the point when the actual decision to make the chocolate was taken, though labour which would facilitate its production had already been expended. It is justifiable to draw the left-hand portion of the curve as I have done because (a) the longer the time since any particular unit of labour was expended the greater the chance that the particular form in which it was embodied (*e.g.*, a machine or factory) will have perished, (b) the greater the number of chocolates whose production it will have facilitated, and so the smaller the cost which must be allotted to each one on its account.

Now, V is positive for any finite value of x, so that labour expended any finite time ago, however large, does make some

contribution to the finished chocolate. But that does not mean that the length of the period of production must be infinite. Actually, on my definitions we have $L = \frac{A}{8}\left(13 - \frac{2}{\pi}\right)$ and R approximately equal to sixteen months, if we take the unit of time to be a year.[1] The point to be borne in mind is that R is essentially a weighted average, and not a range. It is, however, probable that my R is just half what most economists mean when they speak of the length of the period of production. For if work is begun on a chocolate at time $t - x$ and $\frac{L}{x}$ men are kept steadily at work on it until it is finished at time t, then on my definition the length of the period of production (average delay interval) will not be X, but $\frac{X}{2}$.

We can now proceed to find a formula for the cost of production of a chocolate.

Let ω be the cost to the entrepreneur of a chocolate finished at time t.

Let W be the time-rate of wages.

Let I be the rate of interest. Simple interest will be assumed; this is both easier to work with and, for all save very large values of R, a closer approximation to real life than the assumption of most mathematical economists that interest is continuously compounded.

Then, on account of the V units of labour expended on the chocolate in a unit of time at time $t - x$, the entrepreneur will incur a cost of

$$WV(1 + Ix).$$

We have, therefore,

$$\begin{aligned} \omega &= W\int_0^\infty V dx + WI\int_0^\infty Vx dx \\ &= WL(1 + RI) \quad . \quad . \quad . \quad . \quad . \quad . \quad . \quad (1) \end{aligned}$$

for by our definitions above

$$\int_0^\infty V dx = L \text{ and } \int_0^\infty Vx dx = LR.$$

But the entrepreneur will always, for any rate of interest,

[1] For $\int_0^{\frac{3}{2}} \frac{A}{4}\{3 + \sin \pi(x - 1)\} dx = \frac{A}{8}\left(9 - \frac{2}{\pi}\right)$ and $\int_{\frac{3}{2}}^\infty \frac{81A}{16x^4} dx = \frac{A}{2}$ while $\int_0^{\frac{3}{2}} \frac{Ax}{4}\{3 + \sin \pi(x-1)\} dx = \frac{A}{32}\left(27 + \frac{8}{\pi^2}\right)$ and $\int_{\frac{3}{2}}^\infty \frac{81A}{16x^3} dx = \frac{9A}{8}$.

choose that organisation of labour which will minimise his cost; that is, we must have $\frac{\partial \omega}{\partial R} = 0$.

But $$\frac{\partial \omega}{\partial R} = WLI + W\frac{dL}{dR}(1 + RI)$$

and so we have $$\frac{dL}{dR}\Big/L = -\frac{I}{1 + RI} \quad . \quad . \quad . \quad . \quad (2)$$

This tells us that $\frac{dL}{dR}$ is negative if I is positive—which means that entrepreneurs will not pay a positive rate of interest unless more capitalistic methods of production yield a saving in labour cost—and that its value is small compared with L.

But in order that equation (2) shall yield a position of minimum cost, we must also have $\frac{\partial^2 \omega}{\partial R^2}$ positive for $\frac{\partial \omega}{\partial R} = 0$.

But $$\frac{\partial^2 \omega}{\partial R^2} = WI\frac{dL}{dR} + W\frac{dL}{dR}I + W\frac{d^2L}{dR^2}(1 + RI)$$

and for $\frac{\partial \omega}{\partial R} = 0$, $1 + RI = -LI\Big/\frac{dL}{dR}$ from equation (2)

Hence for $$\frac{\partial \omega}{\partial R} = 0, \quad \frac{\partial^2 \omega}{\partial R^2} = WI \Big/ \frac{dL}{dR}\left\{2\left(\frac{dL}{dR}\right)^2 - L\frac{d^2L}{dR^2}\right\}.$$

Thus, since $\frac{dL}{dR}$ is negative, $\frac{\partial^2 \omega}{\partial R^2}$ will be positive for $\frac{\partial \omega}{\partial R} = 0$ if

$$L\frac{d^2L}{dR^2} > 2\left(\frac{dL}{dR}\right)^2 \quad . \quad . \quad . \quad . \quad . \quad . \quad (3)$$

But this is the condition that the benefits derived from more capitalistic methods of production shall obey a Law of Diminishing Return. For we may regard $\frac{1}{L}$ as a measure of productivity per head. Then the required condition is that $\frac{d^2}{dR^2}\left(\frac{1}{L}\right)$ should be negative.

Now $$\frac{d}{dR}\left(\frac{1}{L}\right) = -\frac{1}{L^2}\frac{dL}{dR}$$

$$\therefore \frac{d^2}{dR^2}\left(\frac{1}{L}\right) = \frac{2}{L^3}\left(\frac{dL}{dR}\right)^2 - \frac{1}{L^2}\frac{d^2L}{dR^2}$$

which is negative when $L\frac{d^2L}{dR^2} > 2\left(\frac{dL}{dR}\right)^2$.

From our fundamental equations we can deduce that, provided the benefits derived from more capitalistic methods of production

obey a law of diminishing return, the lower the rate of interest, the longer will be the period of production $\left(\frac{dR}{dI}\text{ negative}\right)$.

For equation (2) can be rewritten in the form

$$-\frac{1}{I} = L\Big/\frac{dL}{dR} + R.$$

Differentiating this with respect to R, we get

$$\frac{1}{I^2}\frac{dI}{dR} = \frac{\left(\frac{dL}{dR}\right)^2 - L\frac{d^2L}{dR^2}}{\left(\frac{dL}{dR}\right)^2} + 1,$$

or

$$\frac{dI}{dR} = \frac{I^2}{\left(\frac{dL}{dR}\right)^2}\left\{2\left(\frac{dL}{dR}\right)^2 - L\frac{d^2L}{dR^2}\right\}$$

which is negative by equation (3).

It will be found also, as we should expect, that the proportionate change in the cost of a commodity due to a change in the rate of interest will be larger the longer its period of production.

For

$$\frac{d\omega}{dI} = \frac{\partial\omega}{\partial I} + \frac{\partial\omega}{\partial R}\cdot\frac{dR}{dI}.$$

But $\frac{\partial\omega}{\partial R} = 0$, and from equation (1) $\frac{\partial\omega}{\partial I} = WLR$,

$$\therefore \frac{d\omega}{dI} = WLR.$$

Thus the change $\delta\omega$ in cost due to a change δI in the rate of interest will be equal to $WLR\delta I$. Hence the proportionate change is

$$\frac{WLR\delta I}{WL(1 + RI)}$$

$$= \frac{\delta I}{I + \frac{1}{R}}$$

which increases with R.

Thus, provided more capitalistic methods of production yield a saving in labour cost, a fall in the rate of interest will be likely to encourage not only the introduction of more roundabout methods of production, but also a shift of resources to the production of those commodities whose period of production is comparatively long.

Those who are more accustomed to think in terms of

"capital per head" than of the length of the period of production should exercise caution in translating my results into their own language. The term "capital" is capable of bearing more than one meaning, but will here be used as equivalent to those producers' goods and unfinished goods (which for our purposes can all be lumped together as unfinished consumers' goods) which the community possesses. It is then true that the longer the period of production the greater will be capital per head, but the exact relation between them depends on the units in which the latter concept is measured. If in time-labour units so that "the total quantity of capital means, first and foremost, the amount of past labour incorporated in all forms of capital goods," [1] capital per head will, in a stationary community, be equal to the length of the period of production. But if capital is to be measured in money-units, so that it means the total money payments to the factors of production in respect of the community's capital, then, in a stationary state, capital per head will be equal to

$$WR\left[1 + \frac{I}{LR}\int^{\infty} M(x)dx\right];\ ^{2}$$

for allowance must be made for interest as well as for wages.

The difficulty of establishing any simple correspondence between the terminologies for more general conditions arises from the fact that the length of the period of production is a function solely of the way in which industry is organised, whereas even in an unprogressive society the amount of capital per head will depend also on the rate of increase of the population. For the new population (over and above those needed to replace the dead and the superannuated) will for some time be contributing solely to the community's Capital, and not at all to the flow of Consumers' Goods on to the market. And in a progressive community the correspondence fails altogether. For while we may imagine that it would be still possible to measure the volume of capital per head, yet, as we saw above, in a progressive society the organisation of industry is continually changing (that, indeed, is what economic progress necessarily implies), and so to talk

[1] Victor Edelberg, "The Ricardian Theory of Profits," *Economica*, February 1933, p. 54. See the whole article for a full discussion on this point.

[2] The proof of this theorem is too long to be given here. $M(x)$ is the function given by the conditions $M(\infty) = M'(\infty) = O$, $M''(x) = V$, from which it follows that $M(O) = LR$ and $M'(O) = -L$. If we choose that value for V such that work is begun on a chocolate at time $t - 2R$, and $\frac{L}{2R}$ men are kept steadily working on it till it is finished at time t, then capital per head will be equal to $WR(1 + \frac{2}{3}RI)$.

about the length of the period of production would, on our definitions, be quite meaningless.

In general, it must always be remembered that the formulæ above were obtained on the assumption that the rate of interest remained unchanged during the production process. They are therefore applicable only to the analysis of equilibrium positions; and are helpful when discussing transition periods merely in so far as it may be well when planning a journey to know both your destination and your starting-point. It has sometimes appeared as though Mr. Keynes were discussing times of change without reference to the positions between which the change was occurring; while his critics have committed the opposite and perhaps more grievous error of assuming that change takes place automatically. Any alteration in the rate of interest tends to cause one organisation of labour to supersede another; and the process is likely to encounter some severe frictions which may have undesirable results. In an unprogressive society the rate of interest would be determined by the community's thrift habits and its law of population growth, and would be extremely unlikely to remain constant long; while in a progressive country the situation would be still further confused by the desire of entrepreneurs to borrow in order to install the latest inventions. Correct theory is more complicated than is generally supposed, for it is probable that business cycles arise out of the natural process of change. It is therefore particularly important that no misunderstanding should arise over the meaning of fundamental concepts.

C. H. P. GIFFORD

THE ECONOMIC LEGISLATION OF THE 73RD CONGRESS (1ST SESSION),[1] 1933

I

ONLY a realisation of the extent to which President Roosevelt has cast his lot with the little man—the farmer, the debtor, and the worker—makes the legislation passed by the last (73rd) Congress comprehensible. The plan of the Administration as embodied in the Agricultural Adjustment (Farm) Act and the National Industrial Recovery Act is to raise prices not by an active monetary policy—contrary to popular opinion, monetary policy was to play a passive rôle—but by providing the favoured classes with additional purchasing power. The farmers are the group to benefit from the Farm Act, which proposes to curtail production by taxing consumers twice: once to obtain revenue to reward the farmer for curtailing production, and then by paying the higher prices that follow in the wake of curtailed production. The workers are the group to benefit from the introduction of a high wage policy as provided in the Recovery Act, and through relief expenditures (including public works) as provided in the Recovery and Relief Acts. Inflation, which is usually profitable to the business man, in part because it offers an opportunity to exploit the worker, is now to be a process by which the worker exploits other classes, the anticipation being that prices are not to rise so much as wages or so soon. Higher prices are the final step contemplated, giving the farmers and other debtors additional relief. Another favoured class, the unprotected investor, benefits from the Security Act, which requires full information from those who issue securities and provides for recovery of losses where misleading statements are made and criminal action where fraud is committed; while the small depositor profits from the Banking Act, which favours him as against the large depositor, and, in addition, protects depositors as a group. The Railroad Act (Emergency Railroad Transportation Act, 1933), which might at first sight seem legislation for the benefit of big business, is scarcely that. Although its main purpose is to reduce the cost of operating

[1] This article is part of a larger plan to study the Process of Inflation which I am undertaking with the help of the Harvard University Committee on Research in the Social Sciences.

railroads, its tenor is that wherever there is conflict between economy and the interest of labour, the latter emerges victorious; no action is to be taken, for example, which deprives workers of their jobs or leaves them in a worse position.[1]

For the past few months (May–August, 1933) the Administration has evinced a strong interest in the movement to raise prices. But the Democratic Platform, in proposing a "sound and adequate currency," whatever that phrase may mean, had not been clearly in favour of inflation in 1932; and the Emergency Banking Act, approved early in March 1933, which offered an unparalleled opportunity to stop the decline of prices, was in a sense a bold piece of deflationary legislation, for its administration provided at one stroke for the closing of banks with about 5 billions of deposits, and limitations on withdrawals from other institutions holding perhaps 10 billions more. The economy proposals which followed (again in March) were certainly anything but inflationary in their intent.[2] It is clear that the attitude of the Administration towards inflation was completely altered in a period of about six weeks. Of course, the Emergency Banking Act (An Act to Provide Relief in the Existing National Emergency in Banking and for other Purposes: Public No. 1—approved March 9), in putting the stamp of Governmental approval upon the banks licensed to reopen, and in offering additional facilities for borrowing to these institutions and thus re-establishing confidence in them, was to that extent an inflationary measure. But the Government allowed billions of dollars of deposits to be destroyed when a government guarantee, which would probably have cost comparatively little at that time, could have made possible their

[1] The Railroad Brotherhood put much pressure on Congress to introduce these protective provisions. *U.S. Daily, May 27, to June 3,* 1933. *Hearings House Interstate and Foreign Commerce* (73 : 1), 1933, pp. 69–74, Public, No. 68—to relieve the existing national emergency in relation to interstate railroad transportation, etc., especially sections 7 (*a, b, c*) and 9.

[2] In House Report No. 1 (Maintenance of Credit of the United States) issued on March 11, 1933, the arguments for the economy proposals are lucidly presented. For the fiscal years 1931–3 the deficits were approximately 4 billions, and the estimated deficit for 1934 promises to be an additional billion unless speedy action is taken. The Committee on Economy unjustifiably points to the increase within a period of several months of the rate on Treasury bills from 1/10 of one per cent. to 4¼ per cent. on March 6, as an indication of the depths to which Government credit had fallen. Of course it was nothing of the kind, but was merely, or very largely, a reflection of the demoralisation caused by the bank holidays. What was particularly worrying the Administration, apparently, was the need of re-financing several billions of securities falling due in the course of the year. It is significant that at this time the Committee argued that substantial retrenchment was necessary to prevent a "vicious uncontrolled inflation."

continued use. In what manner could a few hundred millions have been spent more effectively than by dispelling the doubts current concerning our banks, and thereby infusing activity into 40 billions of deposits? Perhaps even the economy proposals,[1] which required drastic curtailment in government expenditures, may be considered inflationary in their effects, because they strengthened the credit of the Government and thus made possible the issue under favourable conditions of billions of securities required under the recovery programme.[2] Yet it seems rather absurd for the Government to discharge thousands of employees and reduce the pay of the remainder at the same time that it provides relief expenditures and public works to take care of the needy, and even requires of local governments a balanced budget as a condition for obtaining federal funds for public works, and also requires of private industry increased expenditures.

Among the important Acts passed by the 73rd Congress, I shall consider in particular the following. (1) the Banking Act of 1933, Joint Resolution No. 10 (the Abrogation of the Gold Clause), (2) the Agricultural Adjustment Act, (3) The National Industrial Recovery Act, (4) The Emergency Transportation Act of 1933, and (5) the Security Act.

Certain other Acts of some importance cannot be dismissed without a few remarks. Public No. 3 (to provide revenue by taxation of certain non-intoxicating liquor, and for other purposes), Public No. 5 (for the relief of unemployment through the performance of useful public work, and for other purposes—the forestry public works legislation), Public No. 15 (Federal Emergency Relief Act of 1933), Public No. 30 (for the establishment of a national employment system and for co-operation with the states), and Public No. 17 (to improve the navigability and provide for the flood control of the Tennessee River; to provide for reforestation and the proper use of marginal lands in the Tennessee Valley; to provide for the agricultural and industrial development of said valley, etc.)—these may all be considered together, being all part of the programme for increasing employment. The Beer Act

[1] Public No. 2, 73rd Congress, An Act to Maintain the Credit of the United States Government (approved March 16, 1933). Also see Public Nos. 77 and 78 (the Fourth Deficiency Act and the Independent Offices Appropriation Act, both approved on June 16) and House Report No. 61 on *Independent Offices Appropriation Bill* (73 : 1), approved May 21, 1933.

[2] The President justified his economy proposals on the grounds that it was necessary to borrow large sums, and, therefore, the re-establishment of confidence in government finances was necessary.

Hearings House Banking and Currency Committee (73 : 1), *Unemployment Relief*, p. 78.

(No. 3) is in its effects similar to public works, for it tends to encourage enterprise by a public measure which stimulates consumption, and therefore employment; and this measure is especially effective, because the consumption can only be satisfied through the construction of new plant and the production of new supplies of consumers' goods. The Forestry measure is clearly one for increasing employment through public works in a manner quite effective in view of the expenditures involved.[1] The Tennessee Project (Muscle Shoals) is both a public work and at the same time an attempt to compete with private enterprise; part of the additional gain in employment may be at the expense of reducing employment in private fertiliser and public utility companies.

The Relief Act (No. 15) appropriated 500 millions for the purpose of extending direct relief to states. Sponsors of this legislation supported it on humanitarian grounds, not because of the possible effects on the volume of purchasing power, prices and the like. Its opponents emphasised the strain on the borrowing powers of the Government, the unfairness of requiring some sections of the country to subsidise others and the folly of converting the R.F.C. from a lending to a spending agency, thus giving a misleading impression of the budgetary situation, and usurping the authority of the Appropriation Committee of the House.[2]

II

The Banking Act of 1933 is one of the most important laws passed at the recent session of Congress. But in many respects it is not consistent with the legislative programme of the Administration. Even since 1928 the Federal Reserve System has been held censurable because of its failure to stop the speculative boom of 1928–29. The new Act, largely the work of that stern deflationist, Senator Glass, is deflationary in spirit because it is an attempt to prevent the recurrence of the speculative boom of 1927–29; but the passage of time, which has considerably dulled the fear of inflation, has also contributed to the elimination of some of the harsh deflationary provisions embodied in the early drafts of this Bill.[3] The Act is at once an avowal of dissatisfaction with the manner in which the Federal Reserve Act has operated in recent years and at the same time an echo of the radical Bryan

[1] House Report No. 13 (73 : 1) on *Unemployment Relief*, especially pp. 1–2.

[2] Hearings House Committee on Banking and Currency (73 : 1) *Unemployment Relief*, especially pp. 7–11, 17–18, 23–6, 44–9, 77–8; also see House Report No. 46 and 46*a* on *Unemployment Relief*.

[3] Earlier versions of this Bill are discussed in S. E. Harris . . . *Twenty Years of Federal Reserve Policy*, Chapter XLIII.

element in the Democratic Party which in 1913 clamoured for (1) a guarantee of bank deposits, (2) a strong and powerful central board at the head of the System, representing the interests of the public, and (3) the encouragement of commercial as against speculative banking.[1]

The guarantee of bank deposits, a plan to which Senator Glass was anything but sympathetic, was added at a relatively late stage; this part of the Act has aroused the greatest interest in the United States as well as the most violent protests. The law provides for the formation of a corporation which is to insure the deposits of all banks that qualify as to their present capacity to meet all obligations, its *initial* capital to be provided roughly in equal parts by the Government, the participating banks and the Federal Reserve banks. Temporarily the non-member banks, if they meet the test of solvency, are eligible to subscribe to the capital of this corporation; but it is hoped that the result of excluding non-members ultimately will be to drive them into the System, thus improving the standards of banking in the country. The guarantee proviso is the important addition to the earlier drafts, and one consistent with the programme of the Administration. The remainder of the Act follows, with the deflationary features somewhat diluted, the Bill that Senator Glass had tried for several years to have enacted.

Like the farm allotment plan, the deposit guarantee helps in particular the farmers and the industries subsidiary to farming in the West and South. Bad banking for the most part has been indigenous to the South and West; the numerous bank failures in those parts of the country have been the result not only of the unfortunate decline in prices of farm products, but also of the excessive number of banks and their loose practices. With the decline of agricultural prices stopped, we may hope that one obstacle to normal banking in farm communities has been removed; but it is too much to anticipate that a guarantee of deposits, in removing one of the most important checks on bad banking, will improve the quality of banking in these sections of the country. If bank failures continue to be relatively frequent in agricultural sections, the other sections will pay the cost of this experiment because their banks are generally sounder.

That the weak should be made stronger by making the strong weaker is not particularly desirable in banking. That was made abundantly clear in the weeks preceding the bank crisis of March,

[1] Senate Report No 77 (73 : 1) on *Operation of National and Federal Reserve Banking Systems*, especially pp. 3–5, 11–12.

when the continued support of banking institutions in the economically weak sections of the country led to a continuous movement of cash to these sections, with the result that the stronger banks there accumulated large surpluses of cash which they redeposited in the East; and later, when epidemics of bank failures broke out in the West and South, these banks, by withdrawing cash deposited in Eastern institutions, forced the banks in the East to close. Furthermore, open-market operations, unless they are on a fantastic scale, cannot strengthen the weak banks losing deposits (cash), sufficiently to prevent large numbers of failures; and long before they attain the objective of stopping failures and re-establishing confidence other banks located in the distressed areas find themselves with embarrassingly large amounts of cash. Direct advances by the Reconstruction Finance Corporation or the reserve banks are a more justifiable method of meeting this particular situation; but, on the other hand, the process of borrowing by the R.F.C. drains the strong banks in the East of their cash, and thus causes additional trouble, since the securities sold by the R.F.C. are sold largely to Eastern subscribers, where the wealth is largely concentrated.

Not only is the East forced to pay a disproportionate part of the expenses of this experiment, but the protection offered the depositors of Eastern banks under the guarantee established in the Banking Act is less than that offered to depositors in general. Deposits up to 10,000 dollars are fully insured; but a large depositor can have his first 10,000 dollars insured fully, the next 40,000 dollars insured 75 per cent. and the remainder 50 per cent.

Here again the farmers and the small depositors are given support rather than the large depositors, who are more largely concentrated in the East. The result of this provision is likely to be a movement of deposits to smaller banks, for depositors, in order to get the maximum protection, will divide their accounts among numerous banks; thus, withdrawals of deposits will be suffered by those banks that have been especially successful in protecting their depositors.

Numerous provisions in the Act are obviously attempts to guard against a recurrence of the speculative madness preceding the collapse of 1929. During most of the period when speculation was rampant the reserve authorities took the position that it was possible to identify the dollars borrowed from the reserve banks, and therefore they could demand that the banks should refrain from making speculative loans while indebted to reserve banks; but in the Act now under consideration the extreme position is

taken that the authority of reserve banks extends to the control of the entire investment policy of the member banks regardless of the source from which funds are obtained. A large part of the Act is devoted to the problem of eradicating abuses that have crept into our banking system as a result of the increasing control by holding companies of banks and the frequent affiliation of banks with security companies.[1]

Throughout the Banking Act of 1933, large additional powers are bestowed upon the Federal Reserve Board; thus the political control of the System, which has from the very beginning tended to grow, is strengthened, for the Board is the link with Congress and, through the Secretary of the Treasury and the Comptroller of the Currency, with the Administration. It may be added, however, that the authority of the Treasury is reduced in some respects. In addition to the increased authority over the speculative use of credit, the control by the Board of open-market operations is considerably increased. The Board is to make recommendations concerning open-market operations and is to approve the decisions of the Open-Market Committee, the reorganisation of which in 1929–30 (now given the sanction of law) was a blow to the prestige of the New York Reserve Bank as well as a reprimand for having initiated the disastrous open-market operations of 1927. The objective of open-market operations is also clearly defined in the Act, for the first time. And, lastly, the Board, in order to prevent agreements similar to those entered into with foreign central banks in 1927, is given absolute control over such negotiations.

In these various provisions—to protect the small depositor and in particular the small banks, to help the farm sections, to reduce the prestige of the New York Bank and the reserve banks in general, to make more difficult agreements with foreign banks and to preserve the banking resources of the country for the commercial and agricultural rather than speculative or investment purposes—the supporters of the Banking Act of 1933 adhere to the broad lines of policy of the Democratic party. A nationalistic policy is assured; political control of the System, be it to assure the success of the inflationary provisions in the Farm Act or to prevent a recurrence of a stock market boom, is also provided for. On the other hand, the deflationary features seem incompatible with the rest of the Roosevelt programme. Yet, it may be argued, that in so far as the Act imposes checks on inflation, it serves to prevent an orgy of inflation such as is followed by a

[1] Senate Report No. 77, pp. 10–12.

prolonged period of falling prices: inflation would not now be necessary if deflation had not followed the inflation of 1927–29.

III

The joint resolution by which Congress abrogated the gold clause in past contracts and prohibits its use in future contracts, Public Resolution No. 10 (approved June 5, 1933),[1] is consistent both with the concern that the administration has steadfastly shown for the debtor classes, with the solicitude of the President for a balanced Budget, and with the expressed desire to raise prices. Long-term obligations in the United States quite generally contain a provision calling for payments in gold dollars of a specified weight and fineness. The possibility of devaluation, the actuality of a premium on gold and the restrictions on its use called, it seemed to the Administration, for some action to protect debtors. This resolution by legalising the payment dollar for dollar in paper dollars on obligations stipulating payment in gold dollars reduces the demand for money required to meet payments of debt, and thus is consistent with the declared intention of Congress to reduce the value of the dollar. In passing this legislation, Congress had declared that it was necessary to abrogate the gold clause in order to exercise its constitutional prerogative of borrowing for the performance of necessary functions and of regulating the value of money and of fulfilling its declared policy of reducing the value of the dollar. If securities issued in the past were redeemable in gold, an issue of new securities by the U.S. Treasury payable in paper dollars would encounter difficulties. Congress could not divest itself of its sovereign rights to legislate in the interest of the public merely because contracts had been made in the past by the Government which, though consistent with the public interest when made, were no longer so; and the Constitution does not prohibit the violation of contracts by Congress.[2]

[1] The attitude of Congress is found in Public Resolution Nos. 10–73*d*. Congress (H. J. Res. 192, Joint Resolution to assure the uniform value to the coins and currencies of the United States) and from the Senate Report (No. 99) on S. J. Resolution 56 and House Report (No. 169) on H. J. Resolution 192.

[2] House Report No. 169: "These gold clauses render ineffective the power of the Government to create a currency and determine the value thereof. . . . In the light of this situation, two phenomena which have developed during the present emergency make the enforcement of the gold clauses incompatible with the public interest. The first is the tendency which has developed internally to hoard gold; the second is the tendency for capital to leave the country. . . .

"There can be no substantial question as to the constitutional power of the Congress to make this legislation applicable to all obligations, public and private,

IV

The Agricultural Adjustment Act, which was approved by the President on May 12, 1933, is of the first importance. It is "an Act to relieve the existing national economic emergency by increasing agricultural purchasing power, to raise revenue for extraordinary expenses incurred by reason of such emergency, to provide emergency relief with respect to agricultural indebtedness, to provide for the orderly liquidation of joint stock banks, and for other purposes." It is declared "that the present acute economic emergency being in part the consequence of a severe and increasing disparity between the prices of agricultural and other commodities, which disparity has largely destroyed the purchasing power of farmers for industrial products," the enactment of title I of the Act, the object of which is to raise farm prices to their pre-War parity, is declared imperative. Also, it is the declared policy of Congress "to establish and maintain such balance between the production and consumption of agricultural commodities, and such marketing conditions therefor, as will re-establish prices to farmers at a level that will give agricultural commodities a purchasing power with respect to articles that farmers buy, equivalent to the purchasing power in the base period." The base period is defined for most commodities to be August 1909 to July 1914. It is stipulated, however, in the same section (2) that the correction is to be effected *gradually*, having in mind the current consumptive demand. Finally, the consumer's interest is to be protected "by readjusting farm production at such level as will not increase the percentage of the consumer's retail expenditures for agricultural commodities, or products derived therefrom, which is returned to the farmer, above the percentage which was returned to the farmer in the pre-War period, August 1909 to July 1914."

The first title of the A.A. Act, which aims to raise the prices received by farmers, is quite consistent with the desire of the Administration to raise prices, and particularly to improve the status of the farmer. The legislation may in some respects be

both past and future. The power of Congress to issue a currency and determine the value thereof and to provide for the borrowing of funds by the Government is express and undoubted. Contracts of private individuals, past or future, are valid and enforceable only in so far as they do not conflict with public policy as enumerated by Congress in the exercise of its constitutional powers. . . . Nor does the fact that outstanding obligations of the Government are expressed as payable in gold *coin* impose a limitation, under the circumstances obtaining, upon the exercise of powers conferred by the Constitution."

justified by the use of the same arguments that would justify a programme of public works financed by borrowing: it is an attempt to transfer purchasing power from those who have been hit relatively little by the depression, to the farmers who have suffered severely; it is an attempt, or may be so construed, to transfer money from those who have it and won't spend it to those who would almost certainly spend it if they had it.[1] Therefore both on social and economic grounds the parity plan may be justified in so far as the relatively well off are thus adversely affected in the first instance. But one qualification is necessary at this point, namely, that an important part of the additional receipts thus received by the farmers may not be spent on consumption goods at all or even for capital goods, but would make it possible for the farmers to meet their obligations on mortgages and to some extent on taxes. In so far as payments on mortgages are thus increased, the initial effect would merely be to release funds of insurance companies and other holders of mortgages, which, though these released funds may ultimately provide industry with additional funds, for the time being may have the effect of taking money away from potential consumers of goods and giving it to farm creditors who might use it merely to strengthen their cash position or bid up the price of gilt-edge securities. But I hasten to add that to the extent that farmers are kept on the farms by stopping foreclosures, the results are more beneficial than they appear at this point.

Another relevant consideration is that the farmers and those dependent on subsidiary industries have had their savings and bank deposits reduced to an abnormally low level, partly as a result of the unfavourable conditions of farming and partly (a circumstance closely related to the farm situation) because of the unsatisfactory banking situation. They will, therefore, for many years to come use additional revenues and windfalls not merely to buy commodities and services, but in large part to build up saving accounts, thus at least temporarily withholding funds from the industries of the country, and in so far as funds that otherwise would have been spent are thus diverted to farmers, the unhealthy

[1] The President said of the Bill that it "relates to agriculture and seeks to increase the purchasing power of our farmers and the consumption of articles manufactured in our industrial communities." In making a report on the Bill, the Committee on Agriculture of the House said that "the additional return received by farmers by reason of the operation of the Bill will be money promptly spent by the farmer in ways that will decrease unemployment and add to the profits of business." House Report No. 6 (73 : 1)—*Relieve the Existing National Economic Emergency by Increasing the Agricultural Purchasing Power*, pp. 1, 7.

tendency to hoard is intensified. Nor should we leave this aspect of the subject without pointing out that there are 12 millions or thereabouts unemployed (July 1933), and their exploitation can scarcely be justified on social grounds or on the grounds that expenditures will be increased. I do not hesitate to conclude, however, that expenditures will be increased with the pegging of prices of agricultural commodities, and the results will be evident in a higher price level stimulated to some extent by the resulting creations of credit.

The proposition, easily understood by the farmer, that the prices he receives to-day for a bushel of wheat or for a bale of cotton ought to be as high in relation to the prices of the commodities that he buys as they were in the relatively normal years preceding the War, has been favourably received by him; and because a programme to raise prices to pre-War parity is more easily applied than are proposals for raising prices to some other level, it appeals to him. Furthermore, the Department of Agriculture has not bothered with difficult theoretical problems such as allowing for the important changes in the budget of the farmer in the last twenty years, nor has it been made entirely clear whether they are interested in establishing parity in relation to the commodities that the farmers buy as a producer or those that he buys as a consumer: there are two distinct problems here. (The index used is based on the prices of commodities used by farmers both as producers and consumers.) It will do the farmer little good if he is favoured as a consumer if the relative level of prices for his crops and costs is such that he receives no net income. So far as I can discover, the authorities have merely estimated the relative movement of prices of agricultural and non-agricultural commodities, and thus concluded, for example, that wheat ought to sell for 90 cents to-day if it is to sell for the same price in relation to the commodities purchased by farmers as in 1909–14.[1]

While the Farm Bill was under consideration, much discussion centred round the question whether the attainment of prices equal to costs, or pre-War parity should be the objective of the farm legislation. If farmers receive a price in relation to the pre-War price for their products that corresponds to the prices of the commodities (in relation to the pre-War level) that they buy, would their costs be met? This depends partly upon the manner

[1] Thus Secretary of Agriculture Wallace says that the cost of what the farmer buys is 104 per cent. of the pre-War level and therefore the price of cotton ought to be 104 per cent. of its pre-War price. Hearings. Senate Committee on Agriculture and Forestry (73 : 1) on the *Agricultural Emergency Act*, p. 25.

in which pre-War parity is calculated. If a wholesale price index is used, this does not necessarily follow, because important costs, such as railroad services, taxes, labour, capital, are not considered, or are considered inadequately in the wholesale price index, and, in addition, the cost of manufacturing receives inadequate attention. So far as I can find out, the price of labour and taxes are not considered in computing the index of what the farmer buys. Improvements have been especially prominent in the manufacturing branches, and therefore, in having the prices of farm products adjusted to pre-War parity, the farmers obtain the advantage of prices artificially raised to the level of non-farm products (as compared with the pre-War level), although the index for the latter has been kept up by the non-inclusion or neglect of numerous products that have especially profited from recent technological advances. Thus we may say, in so far as this consideration is relevant, that the farmer obtains more than the full advantage of the gains made by other industries.

Not alone costs, but also demand must be taken into account in solving the problem; that is perhaps the explanation of the unwillingness of Mr. Wallace to concentrate on costs. He admits that the problem is to squeeze the consumer as much as possible,[1] and it is recognised that even parity may not be obtained speedily, for higher prices discourage purchases. In the Act it is even stipulated that the prices of many commodities competing with the basic agricultural commodities may be raised to prevent a diversion of purchasing power to these markets; [2] and even then, it may be added, the final result may be a relatively small increase in the prices of agricultural commodities in general and in the competing products, and also some curtailment of production and consumption all along the line—the results depending partly on the behaviour of the banks.

The supporters of the Agricultural Adjustment Act were not unaware of the possibility that the consumer may be unable or unwilling to pay the processing tax. Thus section 9 (*b*) provides that though the tax as a rule is to be at a rate which corresponds to the difference between the current price and the fair exchange value of the commodity, whenever the imposition of a tax at that rate results in the accumulation of stocks or a reduction of prices of farm products, the rate of tax shall be reduced. Furthermore, the tax may be refunded where its imposition curtails the

[1] Cf. *ibid.*, p. 139; cf. pp. 110–11, 123. The argument is presented that a price equal to costs ought to be guaranteed rather than pre-War parity.

[2] Cf. *ibid.*, p. 304.

consumption of the commodity, that is, particular consumers may be exempted from the tax when the imposition may result in the accumulation of surpluses and a substantial reduction of consumption (section 15*a*). A blanket exemption, of course, is also offered to exporters of the product and articles manufactured thereof, thus making possible the sale of products at a lower price abroad than at home.[1]

In the process of passage, however, the view that the price received by the farmer constituted a small part of the retail price of the finished product, and that therefore a relatively large processing tax was enforceable without a reduction in consumption, was widely held, and played a large part in the passage of the Act. The tax, it was held, would do the farmer much good, and would not be felt by the consumer; in fact, farm leaders time and time again expressed the view that the price of bread, which remains relatively stable as compared to that of wheat, which is traded on a speculative and well-organised market, has nothing to do with the price of the latter.[2] But this position was not universally held. Congress listened to the pleas of various farm groups who pleaded for exemption from the *benefits* of a processing tax on the grounds that the consumer could not possibly pay more, and therefore any tax would simply fall upon the producer, resulting in unsold supplies.[3] In one important provision this difficulty was recognised: whenever the imposition of a tax diverts consumption to competing commodities (the Senate Bill contained the provision "*competing commodities*" while the House Bill limited it to "competing *agricultural* commodities"), the authorities might impose a similar tax on these competing commodities.

The second title is devoted to the problem of refinancing of farm mortgages and also to providing new financing; the epidemic of foreclosures, actual and threatened, has made this legislation necessary.[4] Section 21 provides that Federal land banks may

[1] Nor will foreigners be pleased with the intention of the Administration to enter into marketing agreements in order to dispose of surplus stocks abroad. *Ibid.*, p. 10.

[2] *Ibid.*, pp. 131, 179; also see House Report No. 6 (73 : 1), p. 7; Hearings Senate on *Agricultural Emergency Act*, p. 204.

[3] *Ibid.*, pp. 152-3, 259-84.

[4] The problem of farm mortgages is fully and lucidly discussed in House Document No. 9—The Farm Debt Problem—Letters from the Secretary of Agriculture of March 27, 1933, especially pp. 1-2, 11, 16, 25, 31-38.

The farm mortgage debt was 3·3 billions in 1910 and 8·5 in 1933. Land values (1912-14 base) were 170 in 1920, 115 in 1930, and 89 in 1932. Gross income from crops and livestock was 17 billions in 1919, 11-12 billions from 1923 to 1929, 9·3 billions in 1930 and 5 billions in 1932. The ratio of mortgages

issue two billions of farm loan bonds guaranteed by the Government as to interest only if they cannot issue bonds not guaranteed at a rate of 4 per cent. It is hoped that mortgage-holders will be willing to accept these bonds in exchange for their mortgages when mortgagors are unable to make required payments, the advantage to the mortgagee being the receipt of a government bond with interest guaranteed in exchange for a doubtful mortgage; the advantage to the farmer being a reduction of interest and in some instances a scaling down of the principal.

V

Sections 43–46 of the Farm Act contain the much-discussed inflationary measures (Thomas Amendments) inserted in the Bill under authority of section 8 of article 1 of the constitution which gives Congress the authority to coin money and regulate the value thereof. (The abrogation of the Gold Clause already discussed was not enacted until later.)

Congress contemplated the possibility of (1) a competitive devaluation or depreciation to capture foreign markets, (2) a resumption of convertibility into gold of paper dollars, which resumption might require a reduction in the gold content of the dollar if issues remain excessive in view of the attitude of the public, and monetary needs, (3) inflation in response to the demands of farmers and other inflationists, and finally (4) an international agreement to inflate and then devaluate.

Whenever any of certain conditions are found by the President to exist, he is authorised (*a*) to enter into negotiations with the Federal reserve banks and the Board to undertake open market operations and, in addition, the reserve banks are to agree to purchase a maximum of 3 billions of U.S. securities directly from the Government, (*b*) to issue 3 billions of greenbacks for the purpose of redeeming government securities, (*c*) to fix the weight of the gold and the silver dollar and to fix the ratio between the two and to allow the unlimited coinage at this ratio, and (*d*) to enter into agreements with foreign governments under which the relation between the value of gold and other currency issued by the U.S. and by such governments is established: the President

to value of mortgaged farms was 27 and 40 per cent. in the years 1910 and 1930 respectively. Income available to meet fixed charges (mortgages and taxes) has fallen even more than gross income, as might be expected from the decline in agricultural as compared to other prices. Difficulties encountered by farm credit agencies in selling bonds, both because of the unsettled conditions in the bond market and the decline of agricultural prices, have intensified the pressure for foreclosures and reduced the volume of new financing.

may fix the weight of the dollar (gold) in accordance with such agreements, but he is not to reduce the weight of the gold dollar more than 50 per cent.

Some aspects of this legislation may be noted at this point. The Federal Reserve Board is virtually told that it must take orders from the Secretary of the Treasury. Should this inflationary movement go too far, the reserve *banks*, in an unprecedented manner, are deprived of their autonomy, for the Federal Reserve Board, with the approval of the Secretary of the Treasury, may *require* the reserve banks to take any action deemed necessary to contend with inflation. Furthermore, the Federal Reserve Board may, with the approval of the President, declare that an emergency exists by virtue of the credit expansion, and may then in its discretion increase or decrease the reserves required against deposits of member banks. (The last appears in section 46.) It should also be pointed out that the unlimited coinage of silver at a fixed ratio to gold can only be invoked for the purpose of stabilising prices or protecting the foreign commerce of the country—the decision to be at the discretion of the President.

Devaluation or the issue of greenbacks is invoked only if the powers under (*a*) (above) are inadequate to achieve the objects of this legislation or the reserve banks prove to be recalcitrant. It is now (September 1933) 4 months since this legislation was passed early in May, and in that period only moderate purchases of securities have been made by the reserve banks, and yet we have witnessed a sensational rise in prices. It seems unlikely that these powers will have to be used to any large degree unless the Treasury finds that the sale of billions of dollars of securities on the open market tends to raise rates too much, or inflationist sentiment becomes more powerful.[1] Issues of 3 billions of securities to the reserve banks would, following the expenditure of the money by the Treasury (and in the absence of offsetting movements), more than double the reserves of the member banks; under the favourable conditions of the midsummer of 1933, the threat of purchase of a maximum of 3 billions securities may be adequate. If undertaken, the results of these measures would depend largely on the manner in which the Government spent the money thus received. Greenbacks, if issued, would merely find their way back to the banks, thus contributing to an increase of their reserves; and if they are emitted, as contemplated, merely

[1] The above was written in August, 1933. Inflationist sentiment is now (late September) stronger. Cf. the concluding pages of this article.

to buy up securities, their issue may not have the inflationary effects desired [1]; for an increase in reserves may not be adequate. Devaluation, also, would be a method of making larger reserves available, and if the conditions were favourable, more expansion would be made possible; but if the provisions under (*a*) failed to bring inflation, then little could be expected of devaluation: the success of the open-market operations, however, might be made doubly sure by the introduction of devaluation, because an opportunity for inflation would be offered to other countries not so well supplied with gold as is the United States, and, therefore, international complications might not jeopardise the success of the attempts to inflate, and, also, the possibility of devaluation might have a desired psychological effect.

VI

The object of the next Act under consideration, the National Industrial Recovery Act, is to encourage national industrial recovery, to foster fair competition, and to provide for the construction of certain useful public works, and for other purposes.[2]

To increase purchasing power in order to stimulate the

[1] That issues are to be made for the purpose of purchasing U.S. Securities is partly to be explained by the opinion widely held that banks would be forced to lend more liberally to industry if the supply of government securities or the profitableness of investment in them were reduced— cf. Senate Report No. 77, *Operation of National and Federal Reserve Banking Systems*, p. 7.

[2] The origins of title I of this Act are not difficult to trace. In Senate Report No. 14 (*Preventing Interstate Commerce in Articles Manufactured by Labour Employed More Than Five Days per Week or Six Hours per Day—issued March* 13, 1933), the germs of this legislation are to be found. "Their millions of industrial workers without jobs cannot buy goods that make up our interstate commerce. . . . The channels of interstate commerce are dried up throughout the country, because men without jobs cannot buy. It is manifest to all who squarely face the facts that our economic structure cannot be rehabilitated until our people can work at fair wages, and thus buy the things that they need. It is also self-evident that we can produce all we can sell at home and in foreign markets on a shorter workweek and workday than we have in force to-day."

In April and May, 1933, the House Committee of Labour held lengthy hearings on the Thirty-Hour-Week Bill. An examination of the testimony of Miss Perkins, Mr. Swope and Mr. Harriman, President of the United States Chamber of Commerce, reveals the origins of some of the additional features of this legislation. In particular, minimum prices, controlling the rate of production and a partnership between labour and industry, were proposed. The House Report (No. 124 on *The Thirty-Hour Week*, issued May 10, 1933) emphasised the need of protecting employers who pay decent wages from the competition of greedy entrepreneurs as well as from the anti-trust laws. Also, the need of protecting American business against low cost products of foreigners was strongly put.

Also consult Hearings on *National Industrial Recovery* before the House Committee on Ways and Means (May 18–20, 1933).—See especially the evidence of Douglas, Green, Harriman, and Richberg.

consumption of agricultural and industrial products is apparently the main object sought. Yet an increase of consumption and purchasing power is impossible without increased production. (We may neglect the possibility of depending on accumulated stocks.) Nowhere in the Act do we find any provisions for the increase of production; but numerous provisions, in particular those that relate to maximum hours, the elimination of unfair competition and the like, the introduction of federal control of the oil industry and the assertion of precedence of the Agricultural Adjustment Act where there is a conflict, the possibility of imposing high tariffs—all these point in the direction of curtailment of production or supply. The provisions "to avoid *undue* restrictions of production except as may be temporarily required"; and the pledge "to promote the fullest possible utilisation of *present* productive capacity of industries," do not carry much promise of a high volume of production; and some of the early codes proposed under this Act give every indication of restriction of output. Under the Industrial Recovery Act the Administration proposes to raise hourly wages by cutting the number of working hours and yet maintaining a respectable weekly wage. If there were any doubts on the attitude of the Administration towards restriction of production and high-wage policy, they have certainly been dispelled by the public statements of the President and the actions of General Johnson, appointed by the President as Administrator under title I of the Act.

Entrepreneurs cannot pay a higher wage per hour of work when costs are already too high for profitable enterprise unless they are compensated in some other manner. If the reduction of hours is large, there may be an appreciable gain in the work accomplished in an hour by the employee; but this gain is to be offset by the loss involved in hiring additional workers presumably less efficient than those displaced, in response to the current share-the-work campaign; and also by the losses involved in a general reduction of the working week in so far as it contributes to a less intensive use of plant and machinery, and possibly additional and uneconomic expenditures for both. Also where there will be a gain of efficiency of large proportions, the hourly wage has probably been increased by a large amount. The conclusion at this point is that the entrepreneur can expect little benefit from these sources to offset the losses involved in paying higher wages per hour.

Behind the efforts of the President and his supporters to raise wages lies the theory that depression has been caused by

the failure of the working classes to receive an adequate share of the national dividend. As General Johnson has said in one of his recent addresses, the millionaire cannot buy 40 dollars worth of ham and eggs; the way out of the depression is to make it possible for each individual to buy 50 cents worth of ham and eggs. Certainly there seems to be more in this argument frequently expounded by Marxists and others, when depression is in our midst and improvements have been proceeding at a rapid pace, than has generally been accorded it in the past by *orthodox* economists. The Cambridge School, and in particular Mr. Keynes and Mr. Robertson, who have directed our attention to the necessity of increasing expenditures, have contributed much to the recent change in attitude of economists toward the relative virtues of saving and spending.

One very significant point may be introduced in support of the Administration's programme. A concerted movement to add new employees not only to share the work of those already employed, but *also* to undertake additional production, if successful, may well have important results; but the clash of this policy with the restrictive aspects of this legislation and its administration has been commented on. The demand for the products of industries in general may increase and also additional economies of large-scale production may be introduced if the concerted movement to increase employment is successful; and these economies may be of a more enduring type than usual if the introduction of new plant and machinery is controlled as planned in numerous codes. Thus let us assume that in each industry monetary wages are increased per unit of output by 25 per cent., a change wrought by paying the same weekly wage for a working week reduced by 33 per cent., the workers' efficiency being increased somewhat. Also let us suppose that each employer agrees to increase his staff by 50 per cent., so that the national wage bill is increased correspondingly. Production therefore rises by approximately 20 per cent.; each worker now produces 80 per cent. as much as before, although his working week has been reduced by one third; and the number of workers has been increased by one half. The increase in production also probably reduces fixed costs, and thus may encourage additional production; but this is left out of account, as is the possibility that other factors of production may not be available in sufficient quantities to make possible this additional production.

Thus workers will have more money to spend, because the

wage bill will be higher by 50 per cent. It is apparent that the worker is not likely to gain to the extent of 50 per cent., for production will increase by but 20 per cent. or perhaps a little more, and their gains are limited to that percentage plus what can be squeezed out of other classes. Need we add that the gain to employment will be reduced in so far as the additional purchasing power is absorbed in higher prices or depletion of stocks? Apparently there is no reason why prices should rise as much as wages, for though wages are an important element in costs, they are not the only element, and therefore an increase in efficiency wages of 25 per cent., if we allow for the proportion of wages to total costs and allow for other economies introduced, may make necessary an increase in prices of but 10 per cent. Thus, because all consumers, including the capitalist class, the Government, the entrepreneur, professional people, etc., are charged higher prices, and because a saving is effected by spreading fixed costs over a larger output, the entrepreneur need increase prices by but 10 per cent. It is to be emphasised that, whatever we may think of the social desirability of redistributing income from the wealthy to the poor, there is no net gain, in so far as the consumers who are not members of the working classes have to pay higher prices for commodities because wages have been increased; the only economic gains result from this transfer in so far as the transfer means that money is put into the hands of those prepared to spend, *i.e.*, the working classes, and taken from those who will not spend, thus increasing production and employment; and from the resulting economies to be associated with additional expenditures, if made.

Higher prices (if not induced through a curtailment of production) are a favourable development because they reduce the proportion of the national income required to meet the indebtedness of industry, and therefore to that extent costs are reduced, and, perhaps, they are welcome because they are symptomatic of additional expenditures (not as yet offset by a corresponding increase in production); but an important gain, a lag in wages, generally available to the entrepreneur when prices rise, is not to be had under the programme of the Roosevelt Administration. Also, it is frequently forgotten that the very act of depriving the creditor classes in this manner also has the disadvantage of involving a reduction of the volume of their purchases, and as the volume of dividends, profits and interest payments continues to decline, the increase of expenditures resulting from transfers of purchasing power to the poor becomes less important.

No industry could now (autumn of 1933) afford to increase its staff of workers (and hours of employment) by 20–50 per cent. unless the movement, under official direction, were made quite general; government interference might well then produce revolutionary results. The newly employed in industry A would buy the products of the newly employed in industry B, and the widespread increase in production would contribute to a reduction in non-labour costs. But the Government can be successful in increasing working hours in this manner only if the high wage policy is not carried to a point where the banks and the entrepreneurs are discouraged by the increased labour costs, anticipating inadequate relief from the reduction of other costs; if total costs are inflated as a result of the high-wage policy, then the entrepreneurs must under present conditions charge higher prices, with the result that the additional purchasing power is absorbed in higher prices, thus discouraging any additional output to that extent; if the banks are sufficiently sceptical of the high-wage policy, the demand for the products of industry will suffer, and the total purchasing power received may decline, because, as a result of the non-co-operative policy of the banks, consumers do not receive the means to pay the higher prices. Any gains to be associated with higher prices will then be offset by the losses resulting from the payment of higher wages and from a reduced volume of sales, or sales at the former level of prices will be unprofitable because costs have been increased and sales have not been increased adequately. The public may be unwilling or unable to pay higher prices (even the wage-earners may save), although the banks are liberal in extending credit, or the banks may be niggardly because they anticipate that the public, discouraged by higher prices, may not spend adequately to assure satisfactory business conditions.

It is evident that much depends on the price and production policies of entrepreneurs, on the attitude of the banks and consumers, and on the distribution of purchases between domestic and foreign markets. The enhancement of the wage-level may do harm in so far as additional purchases abroad are stimulated.

We must conclude that there may be some wisdom in the National Industrial Recovery Act: when more men are put to work and produce additional goods, a larger national income is available for distribution; and this holds whether the mechanism is a concerted movement sponsored by the Government to employ more men in private industry or whether the plan is a large programme of public works as provided in title II of this Act.

Perhaps the objection may be raised against the latter, that the construction of roads, public buildings, improvements of harbours and the like do not in the first instance provide the workers with the food, clothing and services that they so badly need; for the newly employed and those now paid higher wages draw on available supplies of consumption goods, and therefore contribute towards higher prices. Thus the programme of public works will not provide those formerly unemployed with so large a volume of goods as a plan which would immediately set men to work on the goods that they require. Would it not be preferable to invest these funds in food or manufacturing industries which will immediately provide the goods sorely needed, rather than in expenditures on roads and the like which may provide over-capitalised construction firms and political henchmen with a large proportion of the new purchasing power and provide the country with roads instead of shoes? Perhaps I have put this point too firmly in a period when accumulated stocks are not small and proposals to make work are not easy of realisation.

Another aspect of this question deserves a moment's consideration. Any policy that reduces savings and retards the mad pace of improvements deserves serious consideration; and, for that reason, any policy that dries up to some extent the sources from which are derived most savings, namely, profits and interest, has something to recommend it. Although a general policy of curtailing production is to be condemned, one that aims to control production at the same time that it tends to encourage consumption, while the discrepancies between the two are further demoralising production, may in truth be a policy that in the long run will stimulate both production and consumption.

In the recent years of expansion, improvements have been introduced altogether too fast; entrepreneurs have not sufficiently allowed for the fact that the advance of science that had made possible new plants, and even new industries, would soon make possible newer plants and products that would catch the fancy of the public anew. In other words, had business men, when confronted with the problem of substituting new plant or machinery or undertaking the management of new industries, gauged accurately the future rate of improvements, they would have had to plan larger obsolescence funds that they have been accustomed to accumulate; and, therefore, plan to charge higher prices for the products manufactured in the new manner or for the new products than they have actually charged, thus reducing the advantage of new industries and plant and enhancing the value

of the old—the pace of change would have been slowed up. We may admit, however, that the rapid scrapping of plant, in stimulating employment in industries manufacturing capital goods, may postpone the depression that will ultimately ensue from the failure to increase consumption rapidly enough when improvements are unusually numerous. Although this is good enough as a palliative, it is only a palliative, for ultimately, when the rapid pace of production in machine industries and the like is reflected in excessive production of consumer goods, the result is bound to be even more disastrous. Where innovation tends to proceed rapidly, industry must be prepared to write down new plant much more quickly than it has in the past, partly by charging higher prices and partly by paying smaller dividends; and also industry must bid less eagerly for new capital, thus cutting down the rate of interest. Paradoxically enough, one may argue to this extent that prices were not too high in the inflation period, but too low; and also that Americans, who have generally been praised for accumulating generous obsolescence funds, have in truth been lax in this matter. Railroads thus might be criticised for paying excessive dividends and borrowing at excessive rates, instead of writing down their plant; and refrigeration companies, on the other hand, might be criticised not for charging 100 dollars for a refrigerator that might be manufactured for 25 dollars, but for their failure to use the profits to write down their capital investments. If the rate of improvement is thus controlled, the result will be a nicer adjustment of consumption to production, an improvement in the standard of living, gradual rather than by leaps and bounds, and an improvement in what are now periods of depression which ought more than to offset the disadvantages of postponing improvements. More energies will then be given to producing consumers' goods in periods of rising activity, rather than in producing capital goods which soon will have to be scrapped.

VII

In title II of the National Industrial Recovery Act, 3·3 billions are appropriated for public works. In making the unprecedented appropriation for this purpose, the Administration is perhaps tacitly expressing some doubts concerning the success of the measures introduced in title I to bring the desired improvement in trade and industry; it therefore becomes necessary for the Government to increase employment by direct measures which will increase employment both directly and indirectly in a manner

that has been very well explained by Mr. Kahn. But in so far as the additional funds spent are diverted to foreign channels, additional employment is conferred upon foreigners and, what is more, an unfavourable balance of payments may put a stop to such measures. American delegates who have urged upon their colleagues at the London Economic Conference of 1933 a programme of public works for all countries are well advised, although the danger of pursuing a lone policy along these lines is not so dangerous for the United States as it would be for some other large countries, both because Americans spend a relatively small proportion of their income on foreign products, and because unemployed factors of production and accumulated liquid and working capital are unprecedently large in the United States, thus assuring a large increase in production without the usual rise in prices. Furthermore, an additional check is provided in the unusual and highly protectionist provision in title I which requires that the President take strong measures, even up to the point of establishing quotas, if foreign products are imported in "*substantial* quantities or in increasing proportion to the domestic production," thus interfering with the fulfilment of the purposes of title I. Whether the occasion of the additional imports is the higher wages and prices resulting from the enforcement of title I or the construction of public works under title II, need not in practice be a concern of the authorities.

In April and early May hearings were being held in the Senate for the purpose of amending the Emergency and Construction Act of 1932.[1] At these hearings many of the proposals for public works later incorporated in the National Industrial Recovery Act were suggested. These hearings also proved to be a rare opportunity for protectionist sentiment to express itself, and not without support in official circles. It was urged that if the Government would raise the necessary capital and lend it in turn to private industry, we could develop in particular potash and wood pulp industries, thus freeing us from the necessity of importing these products from abroad. Such propaganda may well be expected, because protection and public works both aim to encourage employment through subsidies to industry; one test of success in both instances is what is done to employment, and the payment of wages above the economic worth of the service rendered is not considered so important as the anticipated increase of national income and employment resulting from putting the unemployed

[1] Hearings Senate Sub-Committee of Banking and Currency (73 : 1), *To Amend the Emergency and Construction Act of* 1932, pp. 18–24, 33–40.

back to work. Of course we cannot be so certain that protection will increase employment (and especially income), since it has adverse effects on export industries, although in encouraging costly methods of production, it stimulates employment. Perhaps more is to be said for the proposals of the supporters of new wood pulp and potash industries than can frequently be said for protectionist arguments. The artificial stimulation of a new industry, in particular one in which we may not do so badly, may be considered to-day in somewhat the same light as a public work. Unemployed factors of production are unusually plentiful, the relation between export and import trade is not nearly so close as it is under normal conditions, and a country in a position to raise large sums of money by tapping the market for government securities may stimulate investment and employment in a manner open to but few countries.

Title II, like the Emergency Construction Act of July 1932, is an acknowledgment that monetary measures in themselves will accomplish little; it is necessary to take money from those who will not spend it and turn it over to potential spenders, *i.e.*, public bodies and beneficiaries of their disbursements. The Cambridge School of Economists has made these principles public knowledge, and though they have not exercised much influence in their own country, Senator Wagner, who more than anybody else was responsible for the public works programme, acknowledges his indebtedness to them. Even a very large bond issue, such as the one now under consideration, will probably help the bond market more by increasing the funds that potential investors are willing to turn over to potential borrowers (and hence spenders), following the resulting rise in prices and demand for products, than it will suffer from the tendency towards higher rates to be associated with the new demands for funds by public bodies. Furthermore, when the programme is financed by a tax programme which provides both for interest and amortisation, so that fears of budgetary inflation are dispelled, the beneficial effects are doubly assured.

VIII

The attitude of the Administration towards many of the important economic issues is very well revealed in the Emergency Railroad Transportation Act of 1933 (approved June 16, 1933). Railroads, unlike agriculture and industry, have received in recent years a relatively stable price for the commodities that they sell, and as late as 1931 they were granted a material increase in

freight rates. Thus, while agriculture, because of its failure to adjust production to changed conditions of demand, has been forced to make large concessions in prices, and industry has tried to solve its problems both by price concessions and reduction of production, the railroads have been content to take their losses in the reduction of traffic, and this despite the fact that they sell a perishable commodity.[1] The result has been glaring discrepancies in the movement of railroad rates and the prices of the commodities that the farmers and industrialists sell. Farmers in particular, who have observed that the railroad charges absorb a larger and larger part of the Chicago price of their products, a price that has been declining drastically, protested at the sluggishness in the movement of railroad rates.[2] Thus, they argue that either price concessions to consumers of farm products are not large enough to tempt the consumer or benefits accrue largely to the railroads and not to the producers. The Interstate Commerce Commission has been holding hearings to determine whether, if a reduction in rates were allowed, the railroads would be compensated by increased traffic.[3] Important issues are raised, for the question of property rights of the owners of the railroads arises if the rates should be reduced, and as a result the returns on the capital invested in the railroads were further reduced. On the other hand, it is held by the shippers that the Supreme Court has agreed that the cost of service rendered should not be more than what the service is worth, and the cost is excessive when the movement of traffic is hampered.[4]

The Act now under consideration pays some attention to the problem of rates, and provision is made not only to cut operating expenses, but also to reduce fixed charges. At first it was suggested that the Co-ordinator should not approve loans from the

[1] According to one expert, revenue per ton mile was 100 in the base period 1913 and 143 in 1932. The price level was 100 in 1913 and 92 in 1932. The prices of agricultural products were 100 in 1913 and 66 in 1932. (Hearings House Committee on Interstate and Foreign Commerce, 73 : 1) on *Emergency Railroad Transportation Act*, 1933, pp. 156, 217.

[2] In the decision rendered on August 5, however, the I.C.C. pointed out that freight rates (not including the increase which lapses on September 30) are approximately 20 per cent. below those of 1920. Cf. Hearings Senate on *Agricultural Emergency Act*, pp. 85–86.

[3] The I.C.C. has rendered a decision (August 5) in which the application for a reduction was refused (*New York Times*, August 6). It was held that the reduction would not increase traffic much and would not help other industries so much as it would jeopardise the railroad industry by causing wholesale reorganisations.

[4] Hearings House Committee on *Emergency Railroad Transportation Act*, 1933, pp. 54, 63; also see Hearings Senate Committee on Interstate Commerce on *Recapture Clause* (73 : 1), p. 38.

R.F.C. if it were not likely that the railroads could weather the storm during the present emergency without financial aid.[1] How long will the present emergency last, and who can tell whether the roads will be able to weather the emergency? The practical effect of this provision, which was considerably changed in the course of passage, are likely to be a discouragement of further loans to railroads.[2]

The primary aim of this Act has been to make it possible to introduce economies in the operation of the railroads.[3] Estimates of the economies possible have been very vague, and on the whole not of any value; there has been general agreement that economies would be made largely by reducing the number of jobs available. It is therefore not surprising that the labour interests led by Mr. Richberg have fought the Bill vigorously, and have succeeded in having inserted provisions in the Act which safeguard the position of labour and make any important economics next to impossible.[4]

There is a great deal to be said for the attitude of railway employees, who have witnessed in recent years a decline in the number employed in the railroad industry of approximately 50 per cent., and even in the relatively quiet decade before 1930, a reduction in the number of employees of approximately 200,000, although the amount of business remained relatively stable in the years 1922–9. The explanation is in part that large economics were introduced. Mr. Richberg argues that the return on 6–7 billions additional invested in the railroads since 1920 just about equalled the pay of the 200,000 workers dismissed from 1920 to 1929, and therefore he implies that the economies were non-existent, and what really occurred was a transfer of income from the labouring classes to the capitalists.[5] I am not sure that the

[1] The Senate Committee is extremely critical of the practice of making loans to railroads through the R.F.C. when their bonds were selling at low prices, without those railroads being compelled to reduce their capital structure and protect their net earnings. (Senate Report, No. 87.)

[2] Cf. Hearings (House) on *Emergency Railroad Transportation Act*, 1933, pp. 20, 53–5, 285–6. Eastman of the I.C.C. (and now Co-ordinator) and Thom, a representative of the railroads, were aware of the need of a revision of this provision. Cf. section 15 of the Act with section 14 of the original Bill.

[3] *Ibid.*, pp. 32–3; cf. Senate Report No. 87, on the Emergency Transportation Act.

[4] *Ibid.*, especially 69, 85, 103–4, 109, and the summary of the Act below, section 7. Senate Report, No. 87.

[5] Hearings (House) on *Emergency Railroad Transportation Act*, 1933, pp. 57, 85–6, 182. Richberg takes the following from the House investigation of the six-hour day :—

	1916.	1930.
1. Revenue tons per hour for all employees except general and division offices	97	141
2 Gross ton-miles per freight train hour	14,877	26,702

view ably presented by Mr. Eastman, that the transportation industry is a competing industry, and therefore must set its house in order and reduce waste just as the Government has attempted to do by reducing costs, is an adequate reply to the Railroad Brotherhood.[1]

Mr. Richberg argues that there is no place to which dismissed workers can go when unemployment is widespread, and they therefore will become public charges. If full employment is the objective of our economic life, as Mr. Richberg claims, then the uneconomic and costly methods of producing commodities may have more to recommend them than is generally accorded them. Artificially high costs, whether induced by the militant labour policy or by tariffs or anything else, may be justified on these grounds. But, in addition, the national income may be increased by keeping these men employed rather than by putting them on the streets, even though their contributions are not quite so large as their pay. It may be desirable for these reasons to keep workers employed even if as a result capital interests suffer, so long as we are aware of what is being done and are content to go to the Government or the banks (under compulsion) for the capital which will be needed in the future. We are then, we might say, imposing a large capital levy on those who have invested in railroads, and to some extent on the public generally; perhaps this policy is justified in this emergency, and the railroads will profit from the resulting increase in expenditures. But we must not expect the public to continue to lend to railroads in the future.

In yielding to the pressure of organised labour, the Administration, even if it has taken the edge off the transportation legislation, has at least been consistent: its policy has been both to stimulate expenditure and to squeeze capital.[2] But although the policies of high wages and maintenance of employment and expenditures are furthered in the Transportation Act, it cannot be defended so easily as can the public works programme as a means of stimulating employment and expenditures.

IX

The last Act that I discuss herein is the Securities Act of 1933 (Public No. 22, an Act to provide full and fair disclosure of the character of securities sold in interstate and foreign commerce

[1] Hearings (House) on *Emergency Railroad Transportation Act*, 1933, pp. 50–3.

[2] Richberg quite properly points to the clash of the general policy of inflation and expenditure with that of deflation and contraction for the railroad industry. *Ibid.*, p. 70.

and through the mails, and to prevent frauds in the sale thereof, and for other purposes). Essentially it is an attempt to protect the public against misleading and dishonest action of promoters, issuers and underwriters by providing for full publicity.[1] The Act is based largely on the British Companies Act, the Taylor Bill introduced in 1919 to cope with the speculative excesses of that period and the Martin Act of New York State.[2] Information on almost every conceivable detail as to income and properties and capital accounts, purposes of issues, terms of issues, considerations paid to promoters and others, high salaries paid in company issuing, is demanded.[3] Sections 11 and 12 make directors and others who sign registration statements, prospectuses and communications relative to their sale responsible severally and jointly if any investor loses money because he has been misled by a false statement or by the absence of a material statement which makes the registration blanks, etc., misleading. The person acquiring such security may sue either at law or equity.

What is the significance of this legislation? The requirement of full and accurate information may well discourage the issue of securities to some extent, and in particular of speculative securities; the provision making directors and others responsible for losses incurred because the information has not been adequate or accurate ought to have similar effects.[4] When artificial restoratives are necessary to re-establish normal conditions in the investment market, more criticism than usual may be offered against any action that tends to restrain investment. Misstatements and fraud have certainly been too prevalent, and the interest of Congress in this legislation can be traced to these abuses and the association of them with the large losses suffered

[1] Almost identical hearings were held by the House Committee on Interstate and Foreign Commerce and the Senate Banking and Currency Committee. The evidence of H. Thompson, who apparently was partly responsible for the original Bill (S 875, H.R. 4314), and Butler of the Department of Commerce, is especially helpful.

[2] Hearings Senate Banking and Currency Committee *Securities Act*, pp. 325–8.

[3] The information required by a competent banker from a borrower is the guide selected. House Report No. 85, on *Federal Supervision of Traffic in Investment Securities in Interstate Commerce*, p. 4.

[4] "The aim is to prevent further exploitation of the public by the sale of unsound, fraudulent, and worthless securities through misrepresentation . . . to bring into productive channels of industry and development capital which has grown timid to the point of hoarding; and to aid in providing employment and restoring buying and consumer power." Senate Report No. 47, on Regulation of Securities.

by investors; but losses can only in small part be traced to such factors.[1]

Perhaps accuracy and fullness of statement would have restrained investors in the speculative period, and therefore have reduced losses later, and thus to some extent diminished the decline of prices which has been the most important cause of the losses suffered. But I am more inclined to take the view that it was only the continuance of the speculative spirit engendered by promoters, banks, underwriters and the like that prevented a spilling of savings (through declining prices caused by an inadequate volume of investment) at an earlier period; in other words, if savings are large and are destined to be spilled in the absence of an equally large volume of investments, it may be preferable to maintain prosperity by stimulating investments, even if part of them are unsound, thus at least increasing the total employment above what it would have been otherwise.

The Act is also quite consistent with the nationalistic policy of the Administration. Of particular importance is the provision in section 6, which requires that the underwriters or agents in the United States must sign, and thus guarantee the accuracy of, the registration statement of any foreign government selling securities in the United States. The agent is also required to furnish full and accurate information of the condition of the borrowing governments, which information, of course, could not be required of the Government directly. These provisions may in the future contribute to a curtailment of foreign borrowing in the United States both by foreign governments and other foreign borrowers who are subjected to the provisions of this Act.

X

Conclusion

Higher prices are certainly the most important single aim of the Roosevelt Administration --higher prices that will ease the burden of debts, higher prices that will be induced not so much through an active monetary policy but by giving the favoured groups, the farmers and the workers, additional purchasing power,

[1] Cf. Hearings Senate on *Securities Act*, pp. 211–26.

The House Committee, after referring to the fact that fully one half of the 50 billions of securities floated in the post-War period have proved to be worthless, says: "The flotation of such a mass of essentially fraudulent securities was made possible because of the complete abandonment of many underwriters and dealers in securities of those standards of fair, honest and prudent dealings that should be basic to the encouragement of investment in any enterprise." House Report No. 85, p. 2.

thus distributing the gains rather unevenly and clearly not in the manner of periods of inflation. Despite the inflationary provisions in the Agricultural Adjustment Act and the resolutions on the gold clause, it may well be said that monetary policy has occupied a secondary place in the plans of the administration; the threat of additional creations of money is present, and the facilities to finance a larger outlay for farm products and a higher wage bill, and perhaps a larger volume of production at higher prices, are available; but the monetary policies have received relatively little attention. A redistribution of income in a manner that is harmonious with the administration's attitude towards distribution justice, and one that will stimulate expenditures and, therefore, the activity of deposits, is perhaps a substitute for monetary policy.

To reduce the weight of past debts is a very laudatory object, and who is to deny that the plans of the Administration for raising prices constitute a much more effective manner of doing so than waiting for bankruptcies and receivorships while expenditures and employment are cut more and more in a vain attempt to avoid them? It is also desirable to redistribute the national income in favour of the farmers and the workers, especially because the stimulation of additional expenditures thus induced enhances the national dividend. But there is some evidence that our leaders are disposed to squeeze capital and management to such an extent that unless the Government is prepared to fill the gaps resulting—some discouragement to savings may be desirable—from curtailed savings, and is prepared to take over industry, they may be going too far. As long as we are appealing to the motive power of the quest for profits, we cannot bring on prosperity by introducing a wage policy that makes business less profitable than it was in 1930–33. Therefore let us squeeze the bondholders and the entrepreneurs as well as the holder of common stocks as much as is possible consistent with obtaining the necessary co-operation of capital and management; but no more. Certainly the active policy of Mr. Roosevelt to raise prices by (1) introducing a programme of public works, thus increasing employment simultaneously in this manner as well as by a concerted movement to take on additional workers, and by (2) threatening inflation and being prepared to make his monetary policy the handmaid of his programme for the return of prosperity, is much to be preferred to Mr. Hoover's policy of waiting for bankruptcy and receivorships to bring costs and prices down sufficiently to start the upward movement of prices and

employment. On the other hand, the President's apparent acceptance of the high-wage theory in a rather extreme form, seems to predispose him to coerce business enterprise to submit to an increase in labour costs beyond a point where compensation can be expected from lower non-labour costs per unit of output or may be obtained from higher prices, and raises serious doubts concerning some aspects of his programme.

A recognition of the need for higher prices was also an announcement of the increased importance of a nationalistic policy. The Agricultural Adjustment Act, even in its non-monetary aspects, pointed that way. Foreigners, of course, were not going to be delighted with a plan to cut acreage in cotton that would force them either to do without cotton or pay a higher price for it, and were not to be pleased that bonuses on domestic production might enable Americans to maintain their foreign markets to some extent. Also the theory on which the farm programme is based is that it is much better to give up export markets entirely if necessary, rather than to allow sales abroad of, what is for most crops, a small part of the total, to depress prices. The resulting loss of export trade is bound to induce restrictive measures towards imports. The Agricultural Adjustment Act provides that the Government is to put a compensating tax on imported commodities that suffer a processing tax or on commodities manufactured from those subject to such tax; and it will be recalled that the Secretary of Agriculture may extend the processing tax to all commodities that compete with those subject to the processing tax. The National Industrial Recovery Act goes even further in this direction, by putting upon the President the responsibility of excluding or taxing foreign commodities that hinder the fulfilment of the purposes of title I of the Act. Public works, a high price and wage policy and a subsidy to farmers are bound to harm the competitive position of the United States, even if we allow for the refunds on exports subjected to a processing tax.

Freedom to pursue an independent monetary policy at home also requires greater freedom in the movement of the foreign exchanges than is possible under the gold standard. A higher price level is likely to require a lower valued dollar abroad; but it is possible that the Administration is carrying too far its campaign to reduce the foreign value of the dollar as a means of obtaining undue advantages in foreign markets. On the other hand, one may argue that a greater protection, through depreciation of the exchanges, is needed than that indicated by relative price

and income movements here and abroad, because the first effects of the Farm and Recovery Acts are going to be not only an increase in prices, but also a reduction of exports and a stimulus to imports; but in so far as fiscal policy is likely to be adjusted to these new conditions, less reliance need be placed on exchange depreciation to improve the balance; and if the fiscal policies do not correct the situation, the exchanges will decline without recourse to artificial measures.

Apparently the puzzling problem of the balance of payments of the United States is to be solved partly by higher tariffs abroad, partly by repudiation of foreign debts and, finally, by a discouragement of the export trade of the United States. The legislation of the last session of Congress, by making less effective the most important factors contributing to the success of our export industries—that is, our natural resources and the high efficiency of our workers and management—is bound to have detrimental effects on our export trade. The extent to which it will suffer will depend upon the extent to which our import trade is affected by the increase in domestic purchasing power on the one hand and the protectionist features of this legislation on the other, as well as upon the defaults and tariff policies abroad. Our export industries will suffer, because the effectiveness of labour, management and natural resources especially count in these industries; but the magnitude of the loss to the export trade will be determined by the point at which the line between domestic and export industries is drawn as fixed by the entire set-up in the balance of payments. Thus, a country that has large credits abroad and a large export trade and will not buy foreign products in adequate quantities, or travel abroad, or lend sufficiently, solves the problem of its balance of payments by forcing upon foreigners defaults (of course this is not their only cause) and protectionist policies, and by reducing its export trade by introducing a nationalistic programme.

The prospects late in September are not very cheerful. Attempts to curtail agricultural production through the imposition of processing taxes have not been very successful in raising prices of farm products; and whatever success has been forthcoming in this direction is to be weighed against the losses to the farmers resulting from the higher prices of the commodities purchased by the farmer to be associated with the policies of the N.R.A. administration. Too late now the Administration becomes aware of the fact that when the banks become sceptical of the possibility of pursuing profitable business enterprise, they will not lend.

The Government is now putting pressure upon the banks to lend to industry funds advanced by the R.F.C.; this is an acknowledgment that its policy of higher costs has not so far helped the entrepreneur. True enough, he has not been slow to raise prices to offset the higher costs; but consumers seem to be unable or unwilling to purchase supplies at these higher prices adequate to stimulate production, and (or) the banks and industry are sceptical concerning their capacity to do so.

The Administration has already assumed obligations to issue securities in such volume that it is difficult to envisage their issue without recourse in great measure to the banks. The additional obligations now being considered make the introduction of inflation so much more imminent, as do the increasing demands coming from the farm sections for extreme monetary measures. Undoubtedly the country would have profited from a moderate dose of inflation induced through increased expenditures by public and semi-public bodies had this policy been introduced at an earlier stage; and it has been unfortunate that the energies of the Administration have gone into accelerating the activities of the N.R.A., instead of stimulating the expenditures for public works already voted. The danger now is that the longer the introduction of a policy of inflation is postponed, the larger the dose that will be administered, and the blow to confidence resulting from the N.R.A. is bound to lead to further shocks when other measures of a radical nature are introduced. On the other hand, the slowing up of the activities of the N.R.A. may stimulate the spending activities of the Government; and the increased costs to be associated with the Agricultural and Industrial legislation make the introduction of inflation as a means of reducing costs even more necessary. It is rather significant of the attitude of the banks that, with this improvement of business in the second and third quarters of the year, the volume of transactions financed by the banks has tended to decline; and whatever improvement ensued is to be attributed to the more active use of deposits already available; and the more active use of these deposits has been the result in no small measure of the anticipation of higher prices. The gains of inflation, it may be added, are not likely to be so large as usual, because the present Administration has definitely aligned itself with labour in such a manner that it could not stand by while the employed worker was being exploited through a process of inflation.

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REVIEWS

Essays in Biography. By J. M. KEYNES. (Macmillan. Pp. 318. 7s. 6d.)

THOUGH charm is by definition undefinable, the fascination of these essays can be readily explained. It is due to the presence in the author, to a quite unusual degree, of a combination of qualities, which is extremely rare and the absence of which accounts for the fact that most biographies make such dull reading. Biography is the art of focussing an epoch and an environment in the story of an individual. First of all, therefore, the biographer must be a personality whose vision of that epoch on environment is worth having and whose temperament is strong enough to vibrate through his pages. Needless to say that there is no lack of *this* quality in these essays. Secondly, the biographer must be thoroughly master of the walks of life and ways of thinking of his hero—the most eminent professor, for instance, is obviously at a disadvantage when writing, say, a life of Prince Metternich. Mr. Keynes, writing on economists, or on politicians whose doings he was able to observe at close quarters, is under no necessity to tax his imagination in order to form an idea of what the psychology of scientific achievement or of political struggle really is. But while most writers with whom he shares this advantage, politicians, *e.g.*, who write lives of politicians, fail to fulfil a third condition of success—Biography, being essentially Art, calls for an artist's hand—Mr. Keynes proves himself to be an artist of very high rank. There are pages in this book every sentence of which is a masterstroke dictated by the highest "Kunstverstand," a term which I have never been able to translate. If we analyse carefully the technique of the impressionist portrait of Georges Clemenceau in the first of the sketches—observe, *e.g.*, the rôle of such elements of the picture as the buckles of Clemenceau's boots—we cannot but conclude that in order to find its equal we would have to look to the summits of epic or dramatic art.

Of the two essays not yet published elsewhere which this volume contains, the one on Malthus is an important contribution to the history of economic thought, besides being a most successful attempt to draw away, with a gentle hand, the curtain

of time and to conjure up a delightful *milieu* of the past so that it lies once more before our eyes. Malthus as an economic theorist—and as distinguished from Malthus the Malthusian—has never had his due. But here he seems to be getting rather more than full measure, some of it by way of a discussion of his anti-saving views, which reads like an *oratio pro domo* of his eminent biographer. We are even led up to the astounding statement: "If only Malthus, instead of Ricardo, had been the parent stem from which nineteenth-century economics proceeded, what a much wiser and richer place the world would be to-day!" Which statement (p. 144) immediately follows a quotation, in which Malthus contends that "a certain proportion of unproductive consumption" is "absolutely and indispensably necessary to call forth the resources of a country." It is, to be sure, not impossible to find an element of sense in this passage, but as it stands it is nevertheless patently wrong. And has not Mr. Keynes himself, in a recent pamphlet of his, been careful to emphasise that *his* anti-saving advice refers to the present situation of practically unlimited productive possibilities? Would he really go so far as to deny that a hundred and twenty years ago such advice, if taken, would have seriously impaired what was to be the greatest economic success in recorded history? There are many other points of theoretical interest in this essay, among others the linking up of Malthus' views on value with the principles of modern short-time analysis, which may well serve to throw new light not only on the history but also on the present problems of economic theory.

Among the other "Lives of Economists" in this volume, we welcome again the Life of Marshall—the gem of its genus, the most brilliant and profound biography of any scientist the present writer ever read, the great monument to the great leader. This portrait is the only "finished" one in the sense that it fully develops, and nowhere merely hints at, all the elements essential to it. Love and labour have been lavished on it. All the powers of the intellectual peer have been put at the disposal of the loyal pupil. Or nearly so: for it is one of the charms of the work that the former does not divest himself of his own attitudes when unfolding those of the Master, and that he, with infinite good taste and feeling, always says so, when, by virtue of his nature or his preferences, he feels unable to accept as a canon some Marshallian method of work or point of view—as, for instance, in the case of Marshall's craving for perfection and resultant reluctance to get himself into print, on which particular

point, however, some sincere admirers of the biographer may well be tempted to expostulate with him, to urge that Marshall's fame would hardly stand higher if he had "plucked the day, flung pamphlets into the wind, written sub-specie temporis" and trusted to accident to achieve immortality (p. 212)—and, incidentally, to appeal to him to reconsider the example of the Teacher who so resolutely refused to give up to the hour what was meant for the centuries.

The great difficulty of a biography like this consists in making one connected whole of its two elements, disposition of a life and exposition of scientific achievements, which are so refractory to being welded together. This difficulty has in this instance been solved in such masterly fashion as to make any commendation inadequate. The exposition of the main body of the Marshallian inheritance in Sections IV, V and VI grows out, organically and without any jerk or break, of the tale of his life up to his appointment to the Cambridge Chair in 1885. The tale goes on. Plenty of little touches help to retain the tenor of the biography. Only the emphasis shifts gradually from personal to scientific fact until we are, at two different points, presented with two lists, referring respectively to money and the general theory of the *Principles*, of what the author considers to be the most important contributions of Marshall towards the improvement of our theoretical apparatus. Gradually the emphasis shifts back again to Marshall's other activities, to his teaching, to some glimpses of his rôle in the daily life of his University, to the house in Madingley Road, in order to turn finally to his latest works and the last losing fight with Time. The oftener one reads this essay, the more one admires it. It is as thus depicted that Marshall and his work will go down to posterity and enter the history of economic thought. The full extent of Marshall's *original* achievement would, to the outside world, including non-pupils most intimately acquainted with his published work, never have been known without this vigorous vindication of his claims, which sometimes rises to incomparable brilliance: [1] Jevons and, by implication, Walras will have to suffer for it—perhaps justly, perhaps only because these Anchises have not had their Aeneas. Yet even an outsider—an outsider who by

[1] Listen, *e.g.*, to: "Jevons saw the kettle boil and cried out with the delighted voice of a child; Marshall too had seen the kettle boil and sat down to build an engine" (p. 188). If there were Jevonians as there are Marshallians, they would—I think rightly—protest. But what a beautiful passage all the same!

training and mentality is not too far removed from Marshall's work, and who in his time also made the pilgrimage to Madingley Road—may testify to the life-likeness of the portrait.[1] Still more he may testify to his conviction that the evaluation of Marshall's work is substantially correct and that the contours are not overdrawn. In one sense he may do so with more confidence than any friend and pupil of Marshall could, who would not be able, and *ought* not to be able, to make quite sure that personal devotion does not influence his vision. One point the outsider would like to add from an unpublished essay of his, in which he tried to define and to explain to himself the nature and extent of Marshall's achievement and influence. No list of results, however complete, exhausts the greatness or accounts for the "aliveness" of his work; what is much more than any or all of them, is that he is constantly though unobtrusively leading on beyond himself—pointing Moses-like into lands in which it was not given to himself to enter.

Less labour and love—though plenty of generous sympathy—has been bestowed on the life of Edgeworth. The author gave good hours to them, but few. And the result is that the statues do not keep the same proportions as the men did or the works do. No attempt has been made to formulate what we owe to the Edgeworth of the theory of Monopoly, International Trade, Taxation and of all those papers, often on points of theoretical detail, which *he* indeed did "fling into the wind," trusting to accident to achieve immortality. Edgeworth the Utilitarian and Edgeworth the Statistician—if this term may be applied without offence to work sparkling with ésprit and revelling in nice points of logic—command the scene. And it must be admitted that it would be difficult indeed, if not impossible, to do justice to England's second great theorist of the 'nineties, who did his best to hide his shining light in a thicket of quotations and quaint circumlocutions. Besides, it is one of the hopeful *presagia* in our field, that efforts do so much converge and that subjective originality is often present where all the evidence points the other way. So it will, probably, never be possible to answer the question, how much of the analytic engine which we attribute to Marshall alone could have been reconstructed

[1] It is as I saw him when I looked at him across his breakfast table in 1907 to tell him: "Professor, after our conversation (about my scientific plans) I feel exactly as I would if I were an indiscreet lover bent on an adventurous marriage and you a benevolent old uncle trying to persuade me to desist." He answered: "And this is as it should be. For if there is anything to it, the uncle will preach in vain."

from Edgeworth's papers had the *Principles* never been written. We would certainly, however, retain in this case the most important of our tools, the indifference-curve.

The last two essays—obituary notices on F. P. Ramsey—together with the handful of quotations from his notes, which so happily supplements them, provide the best possible illustration to some beautiful lines in the preface. Certainly, that young man was a true product of Cambridge at its best—nobody can have any doubt about it who ever met him, which the present writer did but once. In discussion he impressed one curiously like an overgrown two-year-old who misbehaves on the racecourse from sheer excess of powers. But this was when he got on philosophical ground; as an economic theorist he had had time already to work himself into polish in spite of very scant acquaintance with the work done outside Cambridge. His two papers, published in 1927 and 1928 in this JOURNAL, stand out in the whole of our literature by virtue of the originality of their approach, of the way, that is, in which he took hold of problems presumably presented to him by others. There is boundless scope for just this faculty in the present state of our science and we may well share Cambridge's mourning for one of her favourite sons.

The first eight essays of the volume, among which the one on Mr. Lloyd George has not been published before, are sketches—not biographies—of politicians, or reviews of books by politicians. A foreigner writing in an economic periodical has double reason to excuse himself from passing any comment except this: if there is anything in the emphasis laid above on the importance of the element of Art in all writing of this kind, such essays must be expected to contain much evidence of autobiographical value. And they do. Quite apart from the interest they have by virtue of their subjects as treated by a master of telling characterisation, they have another because they shed much light on the views and ways of thinking and feeling of the eminent economist who wrote them; those views and habits of thought which perhaps ought not to, but do, influence professional judgment, wherever it outsteps the frontier of the realm of provable theorem. A pleasant hour might be passed in piecing together the author's sociology, social philosophy and politics from the abundant material scattered over these pages. In fact, the present writer added another one to his unpublished essays. The resulting picture was strongly suggestive of John Stuart Mill's views. Not indeed in every particular. Mill might

have disliked some of the implications of the essay on the Villiers connection. But he would have forgiven them on finding, in the essay on Lord Oxford, the term "stupidity" in the neighbourhood of the term "conservative." He might have been saddened by evidence of disbelief in the fundamentals of Utilitarianism, but he would surely have been reconciled by still stronger evidence of firm adherence to its spirit and to some of its most important practical consequences. Philosophical radicalism is obviously not dead as yet—spreading among us as it does its generous hopes for humanity and its stout refusal to see in life but a little intermezzo of irritating nonsense between eternities of death.

JOSEPH A. SCHUMPETER

The Economics of Imperfect Competition. By JOAN ROBINSON. (London: Macmillan. 1933. Pp. xii + 352. 18*s.*)

THIS is an interesting and stimulating book. So stimulating, indeed, that there is something one would like to argue about on almost every page. But there are limits to editorial indulgence, and nothing more must be attempted than to indicate broadly its character and contents.

It is written by one of the younger generation of economists, who has worked in close contact with others. For a product of youth it is surprisingly—to a rebel veteran, disappointingly—conservative. Meaning by this, not that there is little new in it—far from it—but that the general approach and, broadly speaking, the method of treatment are on established lines. True, the theory of perfect competition is relegated, as it should be, to the position of a very special, if instructive, special case. That is a welcome and illuminating departure from the conventional method of presentation. But the whole mechanism of analysis, with its cost-curves and receipt-curves, supply-curves and demand-curves, is of the traditional classical type. The originality of the work is to be found, not in any bold and far-reaching innovation, but in its detail.

The whole structure rests on two main supports. (1) A simplified version of the well-known theorem in which Marshall summarised the conditions necessary for equilibrium in an individual firm (*Principles of Economics:* Mathematical Appendix: Note xiv, pp. 846–52). As stated by him, this was (translating symbols into words) that a firm must be turning out each of the various commodities it produces in such a quantity

that, if it slightly increased its output of any one, or any combination, of them by employing more of any agent, or any combination of the agents, of production, the addition to its total costs would be equal to the addition to its total receipts. In the book before us attention is confined to the special case in which each firm produces only one commodity, and it is assumed that every firm is in equilibrium when the industry is, so that the condition then holds good of every firm. (2) A modified version of Prof. Pigou's theorem that, with free competitive entry into an industry, an "equilibrium" firm's average cost of production per unit of output must, when the industry is in equilibrium, be equal to the price of the product (*Economics of Welfare*, 4th ed., pp. 216 and 790 ff.). Here the principal modification is that where a firm, having exceptional advantages for its trade, is able, with the industry in equilibrium, to secure a surplus profit in excess of the minimum required to keep it in that trade, the surplus is treated (except in the case of monopoly) as a "cost" and charged as a fixed overhead in reckoning the cost per unit at which it can provide any given output. By this means, Prof. Pigou's theorem also is made to apply, not only to an "equilibrium" or "representative" or "marginal" firm, but to every firm in the industry. The bringing together of these two theorems, thus adjusted, is the pivot on which a great part of the argument turns. They are illustrated by a system of four plane curves—Prof. Pigou's "average" and "marginal" cost-curves for the individual firm, the "demand-curve" for its output suggested by Marshall and applied by Mr. Sraffa in his path-breaking article (this JOURNAL: December 1926) and its "marginal revenue" curve—a device for depicting the rate at which, for each various output, its total receipts increase with an increase in output which has been used of late by several writers and students. To these are added four curves illustrating the relation between the output of an industry (or firm) and its "cost" in various different senses which may, as was observed in the JOURNAL for June 1928 (pp. 264 and 259, note 4) and is here more fully explained, be attached to this term according as it is, or is not, taken to include the excess earnings which resources specially adapted to a particular trade can obtain over the minimum necessary to secure their services there. Such are the principal "tools" which Mrs. Robinson has collected in her "box" (p. 327) and wields with skill and effect.

They are used most successfully, as it seems to me, in that

part of the book which deals with "monopoly" in the usual sense, *i.e.* in treating cases where there is only one seller (or buyer) of the commodity in question and he can appreciably influence its price by altering the amount he offers (or buys). In this field, the chapter on "Price Discrimination" (pp. 179–202) may perhaps be placed first in order of merit. The argument here is intricate and highly ingenious and in several respects carries the matter a stage beyond the point at which it was left by Prof. Pigou. Next should rank the "comparison of monopoly and competitive output" (Chaps. XI–XIV, pp. 143–76), sections 4 to 6 of Chapter XIV (on "objections to the comparisons") being perhaps the most original and certainly among the most interesting passages in the whole book: the central, and novel, idea running through these chapters is that account must be taken of the monopolist's power to influence the prices of the factors he buys as well as the price of his product—a marriage between the theories of seller's and buyer's monopoly which is happily and fruitfully consummated. Honourable mention should also be made of the full analysis of the tendency to "exploitation" (Chaps. XXV and XXVI), which, though a little meticulous, brings out several important points and includes (pp. 302–4) a very pretty application to the problem of men's and women's wages. It is not possible in a small space to describe, still less to criticise, Mrs. Robinson's conclusions. For, as has been said, their significance lies in their detail—extensions, corrections, modifications of the existing corpus of theory,—an application, here, to a more complicated issue, a sharpening, there, of its precision. It must suffice to say that this part of the book is a definite contribution, in the classical manner, to the pure theory of monopoly.

The part concerned with cases intermediate between monopoly proper and simple competition (to be found mainly in Book III, but also in portions of Books II and VII and elsewhere) is—rather strangely in view of the title—less complete and, to my mind, less satisfactory. This is, I think, partly because some of the circumstances from which abstraction is made throughout are apt to be of more dominant significance in this class of case, partly because in this branch of her work the author has not so consistently resisted the temptation to use a "technique" which is admittedly designed "for studying equilibrium positions" (p. 16) in an attempt to analyse the effects of change (see, in particular, Chap. VII, but cf. also Chaps. IV and V). But it must also be said that there is some tendency here to evade difficulties

instead of facing them and that the handling of one or two leading conceptions (notably that of "normal profit") does not seem altogether secure. Space, however, or the lack of it, again forbids detailed comment.

Some observations may be added on the broad merits of the method adopted, for Mrs. Robinson attaches as much importance to the "technique" she employs as to the results she arrives at.

Terms are defined and assumptions stated more fully and clearly than is common in treatises on economic theory (though the meaning of a "commodity" and the nature of the mysterious factor "entrepreneurship" are left a little vague); the argument is presented cleanly and with notable precision. These are great virtues. The "high degree" of "abstraction" involved by "the very severe simplifying assumptions" and the consequent impossibility of applying the results directly to the "real world" is fully acknowledged; and this is a virtue too (if there are lapses from it here and there in the course of the book, who can throw a stone on that account?). The restoration of "marginal revenue" to its rightful place as the counterpart to "marginal cost" is a definite gain, attested by the number of independent workers who have lately recognised the necessity for it. But was such a large measure of abstraction really required? In some respects, Mrs. Robinson retreats rather than advances on the road "towards the far distant ideal of constructing an analysis which will be capable of solving the problems presented by the real world" (p. 327). There is surely no need at this stage to confine attention to the purely hypothetical case in which each firm produces only one "commodity": nor (after the pioneer work of Marshall) to run away from the fact that firms may expand and contract, rise and fall, without any corresponding change in the output of the whole industry; and the assumption that the quantity of the "entrepreneur" factor in each firm is fixed (so long as it remains in business) and requires a reward which is independent of the amount of its output seems quite gratuitous. No doubt, the first of these hypotheses makes diagrammatic treatment easier; and diagrams are prominent throughout, so much so that the book might almost be called an essay in geometrical political economy. But if we are to move forward towards the "distant ideal," has not the time come when we must leave our diagrams behind—useful though they have been (and still are pedagogically) for elucidating some broad, fundamental ideas? Even if the subject-matter is suitable for mathematical handling (which is open to question), are plane curves

adequate for the purpose? It is significant that Mrs. Robinson has been obliged to "call in the assistance of a mathematician to provide certain proofs" based on the calculus of variations (p. 12), and that for one of the more complicated problems which "finally yielded to geometrical treatment," "difficulties" had to be "cleared from the ground" by "analysis" also supplied by a professional mathematician (p. 190); and it seems unlikely *à priori* that an instrument adapted to deal with functions of one variable only will prove supple and refined enough to be of much avail in tracing or displaying the immensely complicated network of mutually dependent influences which is encountered as we approach nearer to our real problems. One would have been glad, too (still with an eye on the "distant ideal"), to have found in the work of this young economist some attempt to supply the more glaring defects of the classical analysis:—to face, for example, rather than to ignore the facts that cost is not uniquely determined by output, that the supply and demand schedules (or curves) are not fully independent, and other similar difficulties; and above all to develop a technique capable of determining and forecasting the effects of change instead of elaborating the conditions required for stationary equilibrium. For it is a radical weakness in curves of the classical tradition (and in the new ones here introduced) that they can properly be used only to describe a particular situation and that we cannot, in general, trace or illustrate the effects of a change or departure from the given situation by moving along them (a similar limitation applies, of course, to the analysis which lies behind them). And they are therefore inapplicable to the greater part of the problems encountered on our march. But it is ill complaining, when we have been given so much, that we have not been given something more or different: it is no criticism of the book before us to say that it is not another book. One minor blemish in the manner of presentation should, however, be noticed. The author is too prone to attribute fallacies to other writers on insufficient grounds. Mr. J. R. Hicks (p. 97), Prof. Taussig (p. 155) and Marshall (pp. 49, 155, 168) are, for example, all treated in this way.

G. F. Shove

The Theory of Monopolistic Competition. By Edward Chamberlin. Published Cambridge, Harvard University Press, 1933. Pp. x + 213. 14*s.*

Professor Chamberlin has produced an important and interesting work on a branch of theory which is still in its early stages.

It has recently come to be realised more and more clearly that the concepts of competition and monopoly do not cover the whole economic field, that there is an intermediate area of great importance, probably of greater importance than the areas of pure monopoly and pure competition, and that, in order to analyse the phenomena belonging to this area, something more is required than the mere statement that it is intermediate. Professor Chamberlin has made a notable contribution towards the provision of suitable weapons of attack, and he argues for the need for such weapons with vehemence and conclusiveness. Indeed, it is to be hoped that we have already reached the time when even elementary expositions of economic principles will recognise three branches in the theory of value, pure competition, monopolistic competition (if that is the best name for it) and pure monopoly. And it is not improbable that the importance of the first and third of these except as expository devices will steadily dwindle.

This work has the great merits of clarity and brevity. It is amply illustrated with well-conceived diagrams. And, subject to two criticisms which will be advanced below, it appears to the reviewer to be in its main lines correct. In handling his subject Professor Chamberlain has sought by precision and thoroughness to elucidate and articulate the principal problems in a way most helpful to workers in this field; it still remains for a master mind (perhaps that mind will be Professor Chamberlin's !) to introduce a greater measure of unity, to construct some apparatus by which it will be possible to demonstrate the various special laws as springing from a single simple principle. Reference has already been made to the need for textbook treatment; it would not be possible to set out the fundamental doctrine of his book within the compass of a single chapter or lecture without leaving out what is essential or descending to the mere vagueness from which it is so desirable to escape.

Professor Chamberlin breaks up his topic in the following way. In one section he treats duopoly and oligopoly, in which fewness of competitors is postulated but all other monopolistic attributes, such as price and product differentation and selling costs, are excluded. He then proceeds to a section on price and product differentiation, assuming first that the number of competitors is large and then that it is small. Finally he has a section on selling costs and compares his results with those achieved in the earlier sections.

In his chapter on oligopoly he passes the famous theories of this subject in review. There is necessarily an old-fashioned

flavour in this part, from which Professor Chamberlin's own contribution is not altogether free. He sets out to show that conflicting results have been due to the authors' adoption of alternative assumptions. His own conclusion is that if an oligopolist takes into account all the effects direct and indirect of a change of policy on his own part, the resultant output of all the oligopolists will be equal to the output of pure monopoly. On these assumptions, namely those appropriate to pure competition except for fewness of competitors, there is no gradual transition from monopoly to competition, but a sudden break at the point at which the individual ceases to think that his own change will have any effect at all on the actions of others. "There is no gradual descent to a purely competitive price with increase of numbers. . . . The break comes when the individual's influence upon price becomes so small that he neglects it." (p. 48.) If he takes cognisance at all, we are right back at the purely monopolistic output; but if he takes no cognisance, output is at the competitive level. But under a separate sub-heading Professor Chamberlin makes allowance for "uncertainty" about what the competitors will do.

On the face of it, this result seems rather unnatural. It is well to pause to consider it, for the problem of oligopoly is not completely transcended in the later sections. On the contrary, it lives on; when all other monopolistic factors are introduced, the distinction remains between the equilibrium when the number of monopolistic competitors is large, and that when it is small and they behave oligopolistically, taking account of the indirect effect of their actions on those of all competitors.

It is rash to enter unwarily into this notoriously difficult and treacherous territory. It may, however, be worth making one suggestion. Why do theorisers on this subject always assume productive costs to be nil? Is it the legacy of Cournot's mineral springs? Some cost curve is usually required in the general theory of value. Why should it be dispensed with in this special problem? or, if not dispensed with, why should it be assumed that the supply available for each competitor is absolutely inelastic? May it not be that the curious consequences spring from this unnatural assumption?

If an individual oligopolist increases his sales, while the others sell the same amount, an appreciable drop in price will be registered in accordance with the demand curve of the market. Other sellers will tend to contract output in accordance with their own cost curves. This will mitigate the drop in price. An individual

demand curve for the products of the oligopolist may be constructed on these lines. The amount that he can sell without causing more than a unit drop in price is equal to the extra amount the market will take at that price plus the amount by which other sellers reduce sales when the price drop occurs, in accordance with their own cost curves. Thus the gradient of the individual demand curve is (arithmetically) less than the gradient of the market curve. In a given market it will be less the smaller is the individual. Moreover, since the marginal revenue curve will diverge from the demand curve more the greater is the output of the individual, his marginal cost will for this reason also be nearer the market price the smaller is the individual. For both these reasons we should expect a gradual transition from the position of the monopolist, whose private demand curve is that of the market, through a series of oligopolists whose private demand curves become flatter the more there are and whose marginal revenue curves diverge less the flatter are the demand curves and the smaller are the oligopolists, to the position of perfect competition when the demand curve is horizontal and its value equal to that of the marginal revenue curve. Professor Chamberlin's " break " disappears.

In his section on price and product differentiation Professor Chamberlin has to deal with tilted private demand curves and their relation to private cost parabolas. He draws two private demand curves (p. 91), one showing the private demand when other producers hold their prices constant and the other showing the demand for the product of any one seller on the assumption that competitors' prices are always identical with his. He traces the relation of these curves as the individual adjusts his output in an illuminating and elegant way. In the section on selling costs, he draws two analogous selling cost curves, and there is an interesting parallelism between the two pieces of analysis. His general conclusions with regard to monopolistic competition compared with pure competition are that prices will be higher, costs higher, the scale of production smaller and the number of producers more. Profits, however, will tend to be the same.

Professor Chamberlin assumes free entry. Hence the tendency of profits to a competitive level. With regard to price policy, if the sellers seek equilibrium in a competitive way, viz. do not take account of the indirect effects of their policy on others, output will rise directly to a point where their profits are competitive. Prices will be high in consequence of the tilted private demand curve.

But if they behave oligopolistically and hold prices higher still, thus securing genuine monopoly profits, new competitors will enter the business, until profits are reduced to the competitive level. Thus the net effect of oligopolistic behaviour is not to raise profits for the individual, but to produce a great excess of capacity, and an enhancement of prices: they will all produce at a much higher point on their private cost parabolas, they will all be producing greatly under capacity at a very high cost, owing to the failure to spread overheads, and the high prices consequent upon this bring them in no monopolistic gains. It is pertinent to inquire why the oligopolistic competitors, whose special attribute is that they trace out to the last stage the effect of their policy on the existing competitors, give no thought to the possibility of attracting new competitors and spoiling their position in that way. Why are they so long-sighted with regard to their existing rivals' reactions, and yet in blinkers with regard to the possibility of new competitors?

But there is a deeper criticism. Surely the assumption of free entry is one which, along with all the other assumptions appropriate to pure competition, requires challenge. Professor Chamberlin has done well to show what the consequences are of assuming free entry on the one hand and price and selling conditions appropriate to monopoly on the other. But the opposite assumption of impediments to entry should also have been given a substantial place. He does make a passing concession to the other point of view. "In so far as profits are higher than the general competitive level in the field as a whole or in any portion of it, new competitors will, *if possible*, invade the field, and reduce them. If this were always possible, as hitherto assumed, the curves would always be tangent and monopoly profits would be eliminated. In fact it is only partially possible. As a result, some (or all) of the curves may lie at various distances to the right of the point of tangency, leaving monopoly profits scattered throughout the group—and throughout the price system." (p. 113.) A fuller treatment than this is desirable.

Professor Chamberlin uses average curves throughout. He is well aware of the relation of these to marginal curves, and discusses it at various crucial points in the argument. A still fuller treatment of the marginal problem, especially where he discusses the relation of the two private demand curves already referred to, would have given his exposition the virtue of completeness.

At one point Professor Chamberlin appears to have slipped

into error. On p. 27 he argues that "price fluctuations render the volume of sales inevitably greater than the equilibrium amount which is indicated by the demand and supply curves." To establish this point he uses an argument which would be appropriate to a simultaneous manifold of prices, but not to a variation of prices through time. He says that when prices are high, some sellers normally excluded will come forward and when prices are low some normally excluded buyers. "Since none of the normally included buyers and sellers can by any circumstances be left out, the total amount exchanged must be greater than that which would equate supply and demand." But this is not so! When prices are high, some normally included sellers *are* left out. Price fluctuations, as he himself argues, are due to imperfect knowledge and foresight. Prices are sometimes high, precisely because certain normally included sellers through lack of foresight have failed to make the goods available, which they would have been perfectly willing to do, had they foreseen what the state of the market would be. Some further comments on the effects of speculation are vitiated by this.

The "dotted curve" mentioned in the text on p. 115 is not present in the figure on p. 114 to which the reference is made.

Professor Chamberlin has also some provocative appendices. This book should play an important part in securing for the theory of monopolistic competition an established place in our corpus of doctrine.

R. F. HARROD

Theory of Economic Equilibrium. A study of marginal and ultra-marginal phenomena. By ATTILIO DA EMPOLI. (Chicago: Christiano and Catenacci Publishing Co. 1931. Pp. 184. $3.)

AT the present time the development of the pure theory of value is in a curious state of confusion. On the one hand, considerable advances are being made in giving precision and subtlety to the analysis; on the other hand, the most primitive fallacies are still to be found even in the works of writers who are engaged in contributing to the advance.

Of this confusion Dr. da Empoli's book is a striking example. For instance, the dichotomy inherited from Cournot and Marshall between agricultural industries "subject to diminishing returns" and manufacturing industries "subject to increasing returns" is accepted as an axiom. Now it is possible to argue that in many agricultural industries the optimum size of firm is likely to be

small (because of the lack of uniformity in the technical conditions of production), whereas a large optimum size is common in manufacturing industries (though such *a priori* generalisations about the nature of the real world are neither very well-established nor very useful in analysis). And it is possible to argue that rising supply price may often be found for agricultural commodities (because of the limited supply of certain natural factors of production). But when a writer who appears to be discussing the problem of the optimum size of firms summarises his argument thus : " The most important source of diseconomies is the tendency of natural resources towards increasing costs. These diseconomies can be considered as internal to and special to a firm in those industries under increasing costs (agriculture, mining, etc.) and external to and general in an industry or group of industries under decreasing and constant costs," the reader is plunged into helpless bewilderment.

A second source of confusion is the dichotomy between monopoly and competition. There are two distinct strands of thought in the notion of competition. One is that in a perfect market with a large number of sellers no individual seller can produce any appreciable effect upon the price of the commodity by altering his output. The other is that where there is free entry into an industry no firm in the long run can enjoy a price greater than average cost of production (including rent of superior ability), so that profits must be normal. The word monopoly can be used to describe an absence of either of these conditions. It may mean a state of affairs in which the individual firm has some degree of control over price (either because the market is imperfect or because the number of sellers is small), or it may mean a state of affairs in which the firm can make an abnormal profit in the long period because entry into the trade of fresh competitors is impossible.

It is necessary to keep these two meanings of competition absolutely distinct, and Dr. da Empoli is at great pains to separate them with his " internal competition " and " external competition." *But he entirely fails to recognise that the word* monopoly has a corresponding double meaning. He quotes Professor Amoroso (p. 55), who proposes to use the word monopoly only to describe the absence of free entry, and after showing for five pages that he has failed to take Professor Amoroso's point, he ends by defining an absence of competition as a situation in which the producer can fix the most profitable price. This definition is in no way a substitute for Professor Amoroso's defini-

tion, and even on its own ground it merely begs the question, since the most profitable price for the individual producer is determined by the elasticity of demand for his output, which, in turn, depends upon the degree of competition which is present.

Finally (and this confusion runs throughout the book and vitiates much of the analysis), Dr. da Empoli's entrepreneurs (although they are expressly stated to be aiming at maximising their profits) appear to attach some mysterious significance to the output at which average cost is a minimum. For instance, when the number of firms is fixed, " the output of each individual producer would be in such relation to the total output of the industry as a whole, that any one of them, in a stiff fight for the existence of their firm against the actual competitors, would in every case produce the maximum output at a minimum cost, realising only his salary as manager of the firm."

But in spite of all this the problems on which Dr. da Empoli is engaged are interesting and important. Many of his criticisms of writers on duopoly are excellent. After pointing out that Cournot makes each duopolist assume that the other's output is independent of his own, while Edgeworth and Bertrand make each assume that the other's price is independent of his own, Dr. da Empoli remarks that the duopolists must soon discover that both assumptions are erroneous " unless they should be suffering from chronic amnesia." Again, the chief problem with which he is concerned is of considerable interest. He shows that the average cost curve of a firm is not in fact the smooth U-shape which we are accustomed to draw, but must, for technical reasons, be composed of a series of small waves, since a small increase in output can often only be made by making an appreciable discontinuous increase in equipment. But the method that he proposes for dealing with this problem is not an improvement on traditional methods. He calls the cost of the output being produced " marginal cost " and the cost of a greater output " ultra-marginal cost." Similarly he calls the demand price of the actual output " marginal utility " and the demand price of a greater output " ultra-marginal utility." With this rather cumbersome machinery he gets some correct results (though the confusion between demand price for the firm and for the industry often leads him astray). But his results can be got more simply by traditional methods. If we know the average costs of successive outputs for a firm, we know marginal cost to the firm (in the orthodox sense), and if we know the supply price of successive outputs for an industry, we know the slope of the supply curve. The " ultra-marginal " idea adds

nothing fresh and the traditional apparatus can easily be adapted to deal with the problems, in which he is chiefly interested, of discontinuities in output and in average cost.

Dr. da Empoli has raised many interesting questions, and anyone who had the patience to disentangle them from his obscure pages and restate them with precision would achieve many important results.

JOAN ROBINSON

Monetary Theory and the Trade Cycle. By F. A. HAYEK. (London: Jonathan Cape. Pp. 244. 6*s*.)

THIS is a translation of Professor Hayek's *Geldtheorie und Konjunkturtheorie*, which appeared in 1929. The author sets out to show the necessity of the monetary approach to Trade Cycle theory, but rejects as inadequate those monetary explanations of the cycle which are based merely on the value of money. In his view fluctuations in the price level as a whole do not go to the root of the matter.

" Any future monetary Trade Cycle theory . . . will have to examine not movements in the general price level, but rather those deviations of particular prices from their equilibrium position which were caused by the monetary factor " (p. 116).

" Every disturbance of the equilibrium of prices leads necessarily to shifts in the structure of production. . . . Monetary theory no longer rests content with determining the final reaction of a given monetary change on the purchasing power of money, but attempts instead to trace the successive alterations in particular prices, which eventually bring about a change in the whole price system " (pp. 123–4).

Professor Hayek's more recent work, *Prices and Production*, may be regarded as a more detailed explanation of what these passages mean. In the work now under review he gives us only a very brief treatment, so brief that a reader not already acquainted with his theory might easily miss the point.

" Every given structure of production," he says (p. 212), " requires a certain definite relationship between the prices of the finished products and those of the means of production. In a state of equilibrium the difference necessarily existing between those two sets of prices must correspond to the rate of interest."

" The price margins between means of production and products . . . can only remain constant and in correspondence with the rate of interest so long as the proportion of current income, which at the given rate of interest is not consumed but reinvested

in production, remains exactly equal to the necessary capital required to carry on production. Every change in this proportion must begin by impairing the correspondence of price margins and the interest rate; for it influences both in opposite directions, and so leads to further shifts in the whole structure of production, representing an adjustment to altered price relationships."

Professor Hayek contrasts changes resulting from changes in the saving activity of individuals, which are "self-perpetuating," with those due to additional credits granted to entrepreneurs. The injection of money into circulation by credit creation acts only temporarily. As soon as the additional money becomes income, capital creation reverts to normal, unless *new* credits are granted.

Professor Hayek, following the methods of Böhm-Bawerk, relates the rate of interest to "price margins" between those classes of capital goods which yield results in longer or shorter periods. Under equilibrium conditions the class of capital goods which yield finished products in, say, five years would have a price level lower by one year's interest than the class of capital goods which yield finished products in four years.

But these price margins are a mere fiction. The capital goods yielding finished products in five years do not form a separable self-contained group. They are a heterogeneous collection, containing many members in common with groups yielding finished products in four years or six years or other periods. Practically every commodity would belong to several groups, and the same commodity would of course command the same price wherever it occurred. And where different commodities are found in different groups, what intelligible meaning can be assigned to the price margin? If the price of a shirt goes up and the price of a loom goes down, Professor Hayek would say that the price margin between them has increased. But how are we to calculate what price margin between looms and shirts corresponds to a given rate of interest? The only case where a price margin exists at all is that of a commodity bought and sold by a dealer with no intervening change in its condition, and there the difference between buying and selling prices covers other costs besides interest, and includes profit.

If interest is to be thought of as a margin, it is not between one price and another, but between prices and *costs*. In a state of equilibrium prices throughout the economic system are equal to costs, provided normal profits be included in cost. If by a

price margin we mean the difference between price and the total of *all costs except interest*, then the price margin is equal to interest. If we suppose equilibrium to be disturbed by a fall in the rate of interest, there will be a general fall of costs. In the first instance this will yield additional profit to producers. There will follow an increased demand for capital goods, which may be accompanied by a rise of prices, and an increased output of consumable goods, which may be accompanied by a fall of prices. To regain equilibrium, the price changes must between them just offset the reduction of interest, but that merely means that prices must be adjusted to costs, and all exceptional profits eliminated.

For Professor Hayek's purpose the important case is that of the creation of credit. He assumes too readily that credit granted to entrepreneurs will be applied to "capital creation." In practice the greater part of the credit granted by banks is not for the construction of fixed capital but for working capital and for holding stocks of goods. If a trader holds goods in stock for a longer period, that is a modification of the structure of production, in that the interval between the productive processes and consumption is lengthened. But the actual result of credit creation is to swell demand and hasten sales, so that on balance stocks are little if at all increased, and the interval is shortened rather than lengthened. When Professor Hayek says that "a low rate of interest first raises the prices of capital goods and only subsequently those of consumption goods" (p. 175), it must be remembered that for this purpose capital goods include consumption goods, even in the finished state, at wholesale.

Professor Hayek finds the explanation of the trade cycle in the characteristic of a growing community, that the banks must be constantly putting the rate of interest below the equilibrium level to induce the appropriate increase in the means of payment. But he does not explain why this cause should operate *periodically* rather than continuously, or why, if it does, the period should approximate to ten years rather than ten months or ten days. To explain the actual duration of the trade cycle, he is inclined to bring in the non-monetary causes (pp. 185–7).

Non-monetary theories of the cycle he has disposed of in the earlier part of the book on the grounds, partly that "it is only when the pricing process is itself disturbed that a misdirection of production can occur," and partly that "all non-monetary trade cycle theories tacitly assume that the production of capital goods has been made possible by the creation of new credit" (p. 90).

It would seem that the decisive consideration is that "a process of progressive increase in the supply of money cannot be maintained under our existing credit system, especially since, as it proceeds, more extensive use will be made of cash" (p. 216).

It is not quite clear why this progressive increase cannot continue indefinitely at a rate corresponding to the growth of population and wealth—say, two or three per cent. per annum. If it proceeds at a much *greater* rate, it will no doubt be brought to an end by the banking system. But Professor Hayek offers no explanation why that should occur. R. G. HAWTREY

The Conflict of Values. By J. R. BELLERBY. (London: Education Services and Richard Clay & Sons. Pp. x + 204. 6*s*.)

THERE must be some good reasons when a man like Mr. Bellerby, who has made his name as a writer on currency and credit, loses all interest in current economic doctrine and devotes all his thoughts and energies to the problem of the reconstruction of society and its ethical basis. Prominent amongst the reasons doubtless are his reaction to the widespread desire in this country to see the manifest injustices of the competitive system eliminated, and to the growing conviction that a fundamental change of the economic system is needed which will largely eliminate competition and substitute a planned control, or operation, of industries and services. His capacity for independent and original thought assures him that an economic system which is to function efficiently and secure the welfare of all involves action by most individuals from motives quite different from those now prominent in business. He is aware that the economic organisation of any age is largely dependent on the positive morality of the people at that time, and changes with it. An orderly advance of a nation to a wholly different economic system would be facilitated by having a clear objective—an "architect's plan" of the economically desirable state; and in his *Contributive Society*, published in 1931, Mr. Bellerby gave us an outline of an ideal society, with some sketch of how it might be reached.

But more important than his plan, which, so far as it went, was not convincing to those who observe present tendencies, and more important than his particular proposal for establishing it, was his recognition that it depended on the acceptance by individuals of new "values" in life. The attitude of men to their neighbours and to society as a whole must be one of desire, and even anxiety, to *contribute* to the common good.

No conception of the ideal economic state founded on mutual

contribution can be more than a skeleton, however, if there is no clear idea as to ultimate values which are to be sought, and if agreement cannot be assumed as to the method of reaching them. Is the ideal state to be militaristic, with rigid discipline for all, and is valour in war, in life-saving, or in discovery to be the highest good? Or is the state to aim at the encouragement and perfecting of a new religion, through which all other values which have goodness will be achieved? Or, again, are freedom, art, and the material welfare and happiness of all to be the direct objective? The author tried to answer such questions as these at the conclusion of his book *A Contributive Society*. A chapter written to be the last of that book appears as the first of his present work, *The Conflict of Values*, for Mr. Bellerby, dissatisfied with some aspects of the Contributive Society as he had outlined it, boldly decided to put to the test of actual trial the ideas in *A Contributive Society*.

In the second chapter is described an experiment which the author made in conjunction with a number of others who determined to live as far as possible in accordance with the rules outlined in *A Contributive Society*. They formed a group called "The Neighbours," whose aims were founded on the philosophy of values outlined in the first chapter. The two following chapters analyse and criticise the ideas put forward in *A Contributive Society* in the light of the results of the experiment; and they are followed by two chapters of a constructive character on the concepts of the ideal state and the conflict of values, which bring the book to an end.

In its important parts this book is by no means easy reading, and the subject-matter and expressions are so strange to economists that much of it requires reading a second time for the author's object and meaning to become clear. Mr. Bellerby is a highly original and independent thinker, courageous and sincere, and obviously possessed by the contributive urge. Whilst this study belongs to normative economics, it has importance for those interested in pure theory, if only as a demonstration of the futility of attempting to seek the causes of economic actions without first trying to understand the psychology of the actors. The mere fact that the old crude hedonistic basis of economic theory has been discarded does not mean that economists can neglect psychology any more than physiologists can ignore chemistry. Mr. Bellerby, however, is perhaps too independent in his ethics and psychology; and by psychologists, at least, he will be regarded as an amateur.

His logic, moreover, is by no means beyond question. He develops his theory of values from the idea of purpose. "As far as can be judged, the peak towards which evolution has so far converged has been the creation of personality. If we contemplate, for instance, the fact of consciousness—the most profound miracle of existence—and trace the development of consciousness into intellect, of intellect into considered purpose, of purpose into character, the conclusion seems inevitable that the end and focus of the whole process is personality. Evolution throughout time seems to have massed itself for this achievement. And the work persists.

"If this is so, and if, therefore, the development of personality may be ranked as high purpose, it follows that the economic system, to be itself purposive, must contribute to the development. Its processes must be such as to challenge and demand character, and its product must aid men to strong growth.

"It follows, further, that in any scheme of purpose, whether practically or abstractly considered, the central feature of the scheme must be the work of expanding personality" (pp. 10–11).

In the sequel the "ifs" seem to be forgotten. Nevertheless, his observations are profoundly true, Personality cannot be created in a vacuum. "If the spiritual values of character are desired, there must be some physical activity in relation to which the spiritual values may arise" (p. 12). A "web of purpose" is needed. The physical elements in purpose are: Things of Beauty and the search for beauty; Truth, and the pursuit of knowledge. In relation to these there come into being the spiritual values. Personality, beauty, truth, and affection (or love) are the highest values, and the ideal social system must permit the expression of these to the maximum. Industry's contribution to purpose is discussed in an interesting section, which, however, seems to require some revision. The author finds himself compelled, for once, to compare mass production and pure handicraft on the basis of total *satisfaction*!

The last two chapters, on the concepts of the ideal state and the conflict of values, are the most finished and useful. We have here graphically presented six concepts of the ideal state of existence in heaven or on earth: the Vikings' Valhalla, where Odin, God of War, received the souls of those slain in battle; Nirvana, of the Buddhists; Plato's *Republic*; More's *Utopia*; Francis Bacon's *New Atlantis* and William Morris's *News from Nowhere*. And these represent to their believers or authors six different schemes of values, each with a different value pre-

dominant. The Vikings enjoyed adventure and battle, and their heaven corresponded. Nirvana is a state of peace, personal tranquillity and security attained through wisdom. Social harmony was Plato's ideal, based, not on abolition of class distinctions, but on education and a perfectly adapted system of laws. Utopia elevates filial obedience, family and social discipline, and religion, and other virtues making for the cohesive semi-monarchical state. For Bacon nothing really mattered except science—knowledge for its own sake and for the benefit of man. Morris, architect, craftsman, man of affairs, and writer of poetry and historical romances, believed in happiness attained through self-expression in activities, especially in construction and skilled handwork. He was convinced that universal freedom of expression would bring out the goodness in men, and ultimately abolish the need for property rights, money, law and government.

These schemes of values are mutually conflicting; but they are only six out of a much larger number of schemes of values which are ardently believed in at the present day. How then is the ideal state to be planned if there is no agreement as to fundamental values? This is the main theme of the last two chapters, though its development is somewhat impeded by lengthy examples and digressions. The ideal state, says the author, calls for the construction of an ideal economic system, an ideal political system, and the discovery of ideal personal activity. It is the search for the last, and for real values, and how men can be given freedom for self-expression without conflict, that engage the author's mind; and he comes to the wise conclusion that if a person attempts an intellectual judgment as to what conduct of his, or kind of work, would lead to his maximum self-expression, he is more likely to be wrong than right. The decision must be that of the heart rather than the head.

Moral satisfaction comes only through the right choice of values; but to avoid conflict there must be, even in the ideal state, some widely accepted scale of values. Values being different in kind, however, there can be no common unit of measurement; and there is only one thing to which a value can be relative: a Plan. It is the function of religion to supply such a plan; but, in the solution of conflicts of values, "religion *must* succeed if religion is to have any meaning at all" (p. 195).

Mr. Bellerby has shown his power of grasping the fundamentals of life and seeing them in relation to the problems of Western civilisation. He has given us a book full of idealism, which lifts the economist and politician (if he will read it) right

out of the futilities of present controversies about currency reform, tariffs, and the number of guns to be allowed to each nation. The inference seems to be, though Mr. Bellerby does not specifically say so, that when a new and definite scheme of values has become widely accepted in the advanced industrial countries, the economic structure of society will be rapidly changed to accord with it. Whether the author's style and views commend themselves or not at first reading, the book cannot but be highly stimulating to all who dare to think out the fundamentals of life.

H. S. JEVONS

Economic Equality in the Co-operative Commonwealth. By H. STANLEY JEVONS. (London: Methuen & Co., Ltd. 1933. Pp. xx + 355. 10*s.* 6*d.*)

To the making of Utopias there is no end, since almost any thoughtful person could devise a better world than the one we live in. There is no finality in human nature as we know it, and nothing forbids the assumption of possible development in any direction that appeals to us.

Mr. Jevons postulates a general growing desire for a new and orderly economic system which shall realise social justice. Socialism, however, is rejected by him as inevitably self-destructive, since any recognised form would still perpetuate differences of remuneration for different services with their attendant jealousies and friction. Nothing but complete equality of reward, which can best be attained by the abolition of money, can (in his opinion) ensure a stable order.

After a description of the very familiar defects of the Capitalist System Mr. Jevons concludes that when all its waste and evils are things of the past, when the community need no longer support either the idle rich or the delinquent poor, when payment for risk-bearing and the existing high costs of distribution have been eliminated, when production and improved processes will (as he assumes they must) have forged and leaped ahead almost beyond our power of prevision, there will be sufficient material wealth to ensure for everyone a standard of living equivalent to that represented to-day by an income of £12 a week, which, in the absence of anxiety about health and solicitude for the education of children, will be adequate for physical and mental health in every occupation. There will be an end of all deceit, double-dealing, selfishness and cupidity; there will be general good-will, brotherly

love and a universal whole-hearted desire to serve the community; there will be joy in achievement and a great revival of artistic creation. Here the reader may be forgiven for adopting a sceptical attitude. Can so much be expected from the change, if indeed the change can be realised? Becky Sharp was quite sure that she and Rawdon could be so good if they had but the money. Many others both in fact and fiction have suffered from the same conviction. Mr. Jevons is convinced that the opposite holds good. He is not, however, always consistent, for he believes that jealousy would be fatal to Socialism. Will Communism leave no such loop-hole or will it succeed in eradicating jealousy and incidentally all other unworthy motives? Is the passion for equality a desire to give of our abundance or merely a dislike of seeing others served better than ourselves? Mr. Jevons's replies to these and other pertinent questions are no more satisfactory replies than those of other theorists. He confines himself to pointing out that we have already learnt to subordinate individual to class interests, and that to subordinate them to the interests of the whole community will be but a short step farther. The more fortunate classes will eventually give up their privileges without a struggle, whether from necessity or from conviction. But he insists on the need for intellectual preparedness and gradual transformation, and even recommends the postponement of the transition until such material progress has been achieved that the sacrifices imposed upon the upper and middle classes will not be too great. Whether this is a measure of social justice or a concession to expediency is not quite clear.

This volume is evidently the writer's *magnum opus*, the fruit of many years' work and careful thinking. Like many deferred publications, it suffers from such postponement. It is, however, undoubtedly interesting; it is couched in temperate language, and even if some of the remedies proposed seem fantastic many of the criticisms of the existing order will command ready assent.

An appendix entitled "Mill on Communism" consists of an extract from the famous Book II, Chapter I of the *Principles*, which makes in a few pages as good a case for Communism as has perhaps ever been made by any writer however voluminous. But the extract, surprisingly enough, stops short of the arguments adduced by Mill on the other side.

H. Reynard

Prices. By GEORGE F. WARREN, Ph.D., Professor of Agricultural Economics and Farm Management at Cornell University, and FRANK A. PEARSON, Ph.D., Professor of Prices and Statistics at Cornell University. (New York: John Wiley & Sons, Inc., and London: Chapman and Hall, Ltd. 1933. Pp. vii + 386. 25*s*.)

THE authors of this discussion of the laws of prices state in the preface that their aim is "to add something to the science of economics, something to the dissemination of knowledge, and to help individuals with their immediate problems, so that they may adjust their affairs to the probable economic weather." For these purposes they have collected together a vast amount of information on index-numbers, production, money, gold and prices, panics, silver, inflation and deflation, wages, debts, taxes, real estate, stocks, and various sections of the history of prices. To deal with the book fully would require a treatise of nearly the same length and a reviewer must be content to deal only with a few significant fragments. This laborious and conscientious work cannot help but attract much criticism and at the same time much approval; it will be welcomed by some as yielding support to theories of the monetary determination of prices and business, while to others parts at least will appear fantastic.

The discussion opens with a comparison of the prices of individual commodities with the general price-level; the former fluctuate about the latter, and where prices decline, as in farm products, the cause is not over-production but "a rise in the value of money," or, to take another example, "the serious thing was the decline in the general level of commodity prices which dragged the hog cycle down." Production is then examined and an index for crops, forest products, and minerals shows for the United States an annual rise of 1·73 per cent. per head before the War (apparently from 1839 to 1914) and an annual rise of only 0·64 per cent. from 1915 to 1929. "There is no basis for the belief that high production is the cause of the depression." "For an explanation of the price changes, we must look outside the commodities themselves. The logical place is to look at the other side of the price equation." The following quotations illustrate the authors' views on recent price history, when prices were high from 1915 to 1920 and again (after a great fall) from 1921 to 1929, followed by a collapse. "Attempts to explain high prices in terms of war demand for food do not explain why commodities were worth only a little more than pre-war in terms

of silver or in terms of practically anything else except gold. . . . It was gold rather than commodities that changed in value. The value of gold was determined primarily by world supply and world demand." "From 1921 to 1929, prices were at all times high for the world gold supply, but were low for the United States gold supply. It seems probable that the growing interest of the world in accumulating gold so as to go back to the gold standard was steadily influencing the value of gold." "Many economists have been misled by attempting to explain the price-level on the basis of gold supply alone without considering the price-level to which business was adjusted. The low value of gold and resulting high prices from 1916 to 1928 were due to low demand for gold for monetary uses. The gold panic of 1929 and the collapse in the price structure were due to a sudden world-wide return of the demand for gold. On the pre-war relationships of gold to production of commodities there was about enough gold to sustain pre-war prices. The demand was greater than if there had been no war because every country desired high reserves to establish confidence. . . . Since there was only gold enough for about pre-war prices with normal demand, prices below pre-war were and are to be expected. But all the gold-using countries that had not reduced the weight of gold in their coins had become adjusted to a commodity price-level of about 40 to 50 per cent. above pre-war."

It is hoped that the foregoing gives a fair summary of the central part of the authors' doctrine. The rest of the book is occupied with the discussion of particular problems and with the reinforcement of the argument from various points of view.

Something may usefully be said with regard to some of the index-numbers used in the debate. Professors Warren and Pearson in their first chapter give an index-number which, they claim, "represents very accurately the general trend of wholesale prices in the United States from 1720 to 1932." The authenticity of an index-number of prices depends, firstly, on the representative character of the quotations chosen and, secondly, on their "weighting" according to the relative importance in the economic structure of the industries to which they belong. That relative importance changes not only according to place but in time, and it follows that the price indices of different countries can only be compared with limited accuracy, and that any index-number falls out of gear after the passage of a limited number of years. Consequently, the continuance backwards for a century or two of an index based on a modern period, 1910–14

in this case, may well be the cause of misleading deductions. In another table the base period is 1880–1914, during which the relative position of different industries was changing so rapidly and greatly as to give little meaning to an average.

A table of considerable importance is shown on p. 48. It gives index-numbers of the physical volume of world production from 1840 to 1931, based upon a series for 1865–1931 prepared for the Federal Reserve Bank of New York by Carl Snyder; the earlier indices are obtained by the backward projection of the Snyder curve, checked by an index-number calculated on shipping, railroad mileage, cotton, coal, and pig iron. Snyder is a statistician of eminence, but still, with all respect, one must demur to such calculations being taken as a source for economic deductions. They are curious, and probably represent the trend of development, but very doubtfully its magnitude. When associated by our authors with equally uncertain figures of world population to give output per head, they produce only the shakiest foundation for monetary theory. Another table (pp. 78–9) of gold stocks is open to a similar criticism as regards the uncertainty of the earlier data on which all the others depend; even recent figures, involving calculations of the use of gold in industry and of the absorption of gold in hoards, are in some degree imprecise. It follows, therefore, that the ratio of gold to world production, of one unsure estimate to another unsure estimate, when used for comparison with an index-number of gold prices (which itself is questionable, since it is open to the criticisms made above, of long duration and of wide basis—1880–1914) can only yield arithmetical results alike doubtful when the two series agree and when they disagree.

It would appear to be an error to compare, as on p. 71, prices and production in the United States of commodities like wheat and maize, the prices of which are regulated in a world market and should be compared with world production. For example, it is stated that between June 1929 and June 1931 the Chicago price of maize fell by nearly 38 per cent. though the crop was 26 per cent. smaller; the world crop of 1930–31, which would influence prices in 1931, was, however, less than 5 per cent. below that of 1928–9. Again, the Chicago price of wheat fell by 38·5 per cent. in 1929–31, but world production declined by only 5 per cent.; world stocks, however, rose by 26 per cent., thus affording a sufficient explanation of the fall in price. In the same connection it may be observed that to compare with price movements the changes in output per head of the population of the

producing country is meaningless in the case of export commodities.

HENRY W. MACROSTY

Booms and Depressions: Some First Principles. By IRVING FISHER. (London: Allen and Unwin. 1933. Pp. xxi + 258. 8*s*. 6*d*.)

Money: Gold, Silver and Paper. By FRANCIS W. HIRST. (London: Scribners. 1933. Pp. xiii + 272. 7*s*. 6*d*.)

THE first half of *Booms and Depressions* contains a fairly satisfactory description of the trade cycle, together with a rather less satisfactory account of the theories which have sought to explain it. The second half contains a rapid survey of recent economic history, together with a brief account of Professor Fisher's well-known proposals for price-stabilisation. The book is well illustrated with statistics and graphs, mostly dealing with the United States, and these are much its most interesting feature. From the pen of Professor Fisher this book cannot but be something of a disappointment. What little theory it contains is in no way novel, while Professor Fisher's contentment with price stability as a policy, and emphasis on over-indebtedness rather than over-investment as the root of all evil, are not encouraging.

Mr. Hirst's book is a very different kettle of fish. Theory, and especially controversial theory, is intentionally reduced to a minimum. Mr. Hirst's position is, of course, rigidly conservative, and his last chapter, on "Monetary Reform," sounds somewhat quaint to modern ears. A violent opponent of monetary management in all its forms, not even satisfied with a gold bullion standard, Mr. Hirst would like to return to a system in which gold actually circulates. But his main object has been to write a popular account of the history of coinage from the earliest times, and in all countries; and in this he succeeds uncommonly well. The book is liberally illustrated with quotations from authorities both ancient and modern, perhaps the most amusing being Marco Polo's account of Kubla Khan's paper money. An excellent index assists reference. A minor misprint occurs on p. 53: "overvalued" should read "undervalued."

HAROLD BARGER

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The Socialisation of Banking. By OSCAR SACHSE. Foreword by the HON. SIR STAFFORD CRIPPS. (Macmillan. 1933. Pp. 135. 2*s.* 6*d.*)

MR. SACHSE tells us that he is not a professional economist but an architect: which perhaps explains the air of naïve surprise with which he records such discoveries as that money is merely a paper promise to pay, and has no necessary connection with the precious metals. From this little book we learn that the author believes that the issue of money should be controlled by reference to the general level of prices; that there is probably quite enough money in existence to do all the work required of it, provided only that the velocity of circulation can be speeded up, to which end it is proposed that bank-notes should be valid for a limited period only, and subject to a small fee on renewal; that in future new credit, if required, should be issued direct to consumers; and that the payment of interest in any form is unjustifiable. Apart from an expression of the author's view that this system should be worked through a national Bank of Great Britain, and of his admiration for the continental postal cheque system, the book contains nothing about the socialisation of banking.

BARBARA WOOTTON

Democracy, Debts and Disarmament. By WALTON NEWBOLD. (Methuen. 1933. Pp. 344. 8*s.* 6*d.*)

MR. NEWBOLD'S book is the despair of the reviewer. The author sets out to tell the tale of the machinations of financial and industrial groups, and their influence on the course of political and economic history from the sixteenth century to the summer of the year 1933; dealing, however, in detail only with the nineteenth and twentieth centuries. In compiling his material Mr. Newbold has both consulted the Press of many countries and himself travelled all over the world, gathering first-hand information from bankers, industrialists, politicians and labour leaders. In the result he has collected an enormous amount of very valuable material, and for this alone his book would deserve the close attention of any serious student of economic development.

But the despair of the reviewer, it is to be feared, will be the despair of many a reader also. For the book leaves absolutely no clear impression of what the author is trying to put across. It is clear that he aims at doing a great deal more than compile a motley chronicle of events in which (pp. 68–69) the sinking of

the *Lusitania* is mixed up with Japanese policy in Manchuria, or with the presence of the German ambassador to the United States and one Oscar Strauss, sometime American representative at Constantinople, at a dinner given by James Speyer of the Deutsche Bank, on the eve of the expected entry of the German armies into Paris. It is clear also that his study is intended to reveal the steady march of the capitalist system of industry towards what the author believes is its final dissolution. Beyond this, I have myself made out (I hope correctly) that Mr. Newbold seeks to demonstrate that it is the masters of technique who hold the keys of power, and that, with changing technique, it has thus been first coal and iron, then oil, then electricity and therewith certain non-ferrous metals, the possession of which has been all-important to those who would guide our destinies.

But the rest, I must confess, after many efforts, remains darkness: the more to be regretted because it is clear enough that Mr. Newbold has something to say, and that the twenty-five years of research which have gone to the making of this book have produced results which ought to be made widely available. Probably the root of the trouble is the author's style, at once elusive and allusive, which leaves the reader to supply too many links in the chain of argument. To take only two or three random examples, what is the meaning of the hint (pp. 79 and 80) that great and important significance is to be attached to the fact that the dates when British War loans may be converted "have fallen within the term of office of a most powerfully entrenched Conservative Administration"? Exactly how (p. 157) was the Kellogg Pact the result of the release of 600,000,000 dollars of gold from the United States? And what is the reader to understand by such a sentence as this, thrust into the midst of a discussion on the economic position of Vienna under the post-war regime:—"The elements which would have made the Soviet Union a paradise for a year at the price of eventual insolvency and foreclosure upon it of a more or less indulgent finance capital with its first-line of welfare-workers and its replacement units of ruthless chartered accountants were always dominant in the circles of that queer cult of the *petit-bourgeoisie* Austro-Marxism"? The context (which contains no other reference to the Soviet Union at least for several pages) gives no help. Mr. Newbold claims to be writing a "popular study." Could he not, therefore, please interpret for the benefit of those who quite honestly cannot understand this language?

BARBARA WOOTTON

This Money Business. By BARNARD ELLINGER, C.B.E. (P. S. King. Pp. 141. 6*s*.)

THIS is an introduction to the institutions and working of the London money market. It is written in simple language, and the description is made concrete by a frequent use of specific facts and figures, partly drawn from the evidence heard by the Macmillan Committee, in place of the generalisations often found in books of this kind. We might have been given a section on the Stock Exchange, an illustrative table showing the various items of expense involved in sending gold from one centre to another, and more comments on institutions such as insurance companies and building societies, which compete with banks in lending and borrowing, but on the whole the descriptive part is well done.

Perhaps Mr. Ellinger does not show sufficiently how the different rates of interest are linked together, like the prices of different qualities of wheat, and how they all tend to vary with the supply of or demand for free capital. Thus he gives the impression of a monopolistic rather than a competitive market when he says "it is obvious" that normally a change in the Bank Rate will be followed by changes in the other rates. Instead of saying clearly that when the new conditions of supply and demand do not correspond to the new Bank Rate, the Bank must change them in order to make its Rate effective, he treats open-market operations as a second weapon, needed only on rare occasions.

We are told at the outset that "this book does not deal with the theory of money." Nevertheless, the concept of a general price-level is explained, with no hint of the difficulties involved in it, and the reader is told with emphasis that the goal of monetary policy should be the stability of prices. It is surely unfair to the student not to discuss the disadvantages of this goal as well as its advantages, before making such a positive statement. Yet, despite two chapters on the gold standard, the possible conflict between stable internal prices and stable exchange rates is not brought out. Nor is anything said of the disequilibrium between savings and investment which this policy might cause. Given technical progress, it would lead to an inflationary boom; the retort that this would not happen if factor prices were perfectly flexible (a retort which usually comes from those who treat them, in other connections, as rigid) is without weight in a world of fixed interest charges and other long-term contracts. Given

technical decline (always a possible result of human folly) it would lead to depression and unemployment. It may be that on balance the advantages of the policy outweigh its disadvantages, but each can decide that for himself. It is a pity that the author has marred a useful book by stating one of several views as if it were a proved and accepted truth.

FREDERIC BENHAM

The Theory of Profits. By PRAFULLA CHANDRA GHOSH. (University of Calcutta Press. 1933. Pp. xx + 442.)

THE theory of profit is a question of equal interest to the economist and to the reformer, but strictly speaking the latter begins where the former leaves off, the economist's conclusions supplying the premises on which the reformer bases his arguments. In practice the rôles are apt to be confused; the economist is liable to dogmatise, and the social reformer to build on his own generalisations of doubtful economic validity.

No such accusation can be brought against Mr. Ghosh, who is only concerned to find a rational solution for our present difficulties. He explains tendencies, assigns effects to causes and ends on a note of advice, but he neither condemns the existing system nor suggests any possible alternative. His first task is to analyse the meaning of profit, and he proceeds to review the doctrines of every economist, British and American, classical and modern, distinguished or obscure. His exposition is lucid and his analysis acute, but the method he adopts makes for a discussion of inordinate length. Thus one chapter gives an historical and comparative account of the concept of profit as entrepreneur's remuneration, another deals with risk-bearing, another with various views of "pure" profit, yet another with the marginal productivity theory, and under each head every author's views are separately explained and substantiated, or criticised and rejected. The result is constant overlapping and frequent repetition. A great deal of this exposition might have been taken for granted, and the writer might well have proceeded at an earlier stage to his own analysis, which is interesting and penetrating, and in places original.

At one point in the discussion of pure profit, Mr. Ghosh seems almost to hint that somewhere among the entrepreneur's activities there is an element of creation which might afford him a special title to remuneration. But the point is lost in further comparative exposition, and his own conclusion, reached much later in the volume, is that entrepreneur's profit is explained

only "by the virtually mercantile nature of his social function as a whole"; it is "secured as the combined effect of his skill both in production, purchase and sale." The source of our present trouble lies in the capitalist's refusal to consume, his greed for accumulation heedless of society's need or his own. The defect, though institutional, is curable. He holds that it cannot be cured by "selling to Labour at a lower price," since this would mean too much loss to the capitalist. This point might well have been argued further, but the book ends a little disappointingly with a mere exhortation to the capitalist to modify his habit of consumption and accumulation if he would avoid stifling the life of the community and paving the way to his own destruction.

H. REYNARD

The Wreck of Reparations. By JOHN W. WHEELER-BENNETT. (London: George Allen and Unwin. 1933, Pp. 295. 12*s.* 6*d.*)

MR. WHEELER-BENNETT has increased public indebtedness to him by the publication of this further volume in his valuable series of studies of post-bellum international problems in a province which he has made peculiarly his own. In earlier works he had brought the history of Reparations down to the arrangement concluded in 1930, which many credulous people professed to regard as a final settlement. The great value of the present volume consists in the fact that it puts on permanent record the entire story of the Reparation Comedy of Errors staged at various Continental capitals during the past ten years, with Messrs. Dawes and Young as impresarios, the cream (presumably) of European statesmen as actors, and France as a jealous custodian of the box-office. Never having shared the miscalculation that, given only ample time, Germany would be able to pay Reparations in indefinite amount, Mr. Wheeler-Bennett is altogether justified in adopting the rôle of the candid critic of the past trifling and tinkering with this problem. Incidentally, he does well also to recall the many obstacles against which all endeavours to scale down the Reparations bill have had to contend. Even after Germany's financial collapse in the summer of 1931 under the crushing burdens imposed upon her, and only President Hoover's moratorium had saved the situation, the French Government seriously issued a formal declaration to the effect that there could be no question of either tearing up (*déchirer*) or even modifying the sacred Young Plan, since it

was "*une convention définitive.*" The plea put forward in France at that time was that the Young Plan was "the sole remaining guarantee for the ultimate reimbursement of France for money actually spent in restoring war damage." Yet, as Mr. Lloyd George lately told us, by that time Germany had paid Reparations in money and kind to the amount of at least 1905 million pounds, of which France had received the larger part, and although her Government had originally claimed 5360 million pounds as war damages, the amount actually expended on that score cannot have exceeded 650 millions. As is well known, the moratorium afforded only a momentary alleviation of Germany's financial straits. Drastic financial reforms and economies were enforced in many directions, but they, too, failed to give the needed relief. The truth was, as Mr. Wheeler-Bennett points out, that for several years Germany had been kept alive economically, and even enabled to pay Reparations, mainly by British loans and profits on trade with this country, with the result that "France had drawn a large part of her receipts on account of reparations indirectly from Great Britain."

Before the Lausanne Conference met, the German Government said plainly that its delegation would press for the total cessation of Reparation payments. While Great Britain and Italy received the intimation with equanimity, France promptly replied with rebuke and more talk of the sanctity of treaties and conventions, but the world smiled at the protest as *démodé* and archaic. Eventually France had, as usual, to fall into line, though her representatives at Lausanne insisted on the insertion in the resulting agreement of a provision which nominally still kept Reparations in a state of suspended animation. For although the Convention itself expressly states that Reparations have ceased, its authors concluded simultaneously a clandestine pact, humorously called a "gentlemen's agreement," under which the validity and operation of the Convention are made dependent on an arrangement being arrived at with America regarding the debts of European States to her. Of the existence of this secret document the German Government was not told until it had accepted the terms contained in the Convention. Mr. Wheeler-Bennett refuses to believe that the word Reparation will again figure in any communication between the creditor Powers and Germany, or that Germany will pay the commutation sum of 150 million pounds sterling (France pressed for 300 millions) in the form of 5 per cent. bonds, which is stipulated in the Lausanne Convention. In the interest of the world's

peace and prosperity it is to be hoped that this reasonable assumption will prove correct. It is well to have the whole Reparation story put together so concisely, lucidly, and impressively as it is in these pages. If a mild criticism may be added, it is that Mr. Wheeler-Bennett's authority and reputation are now too solid and too generally recognised to need the assistance of dedications and contributed introductions.

W. H. DAWSON

Statistics in Theory and Practice. By L. R. CONNOR. (London: Sir Isaac Pitman & Sons, Ltd. 1932. Pp. xvi + 371. 12*s*. 6*d*. net.)

THERE are a number of text-books of proved value in the theory and practice of statistics, some particularly useful to the student of economics, but there is probably no book which covers so much ground as this one. Within its compass of 365 pages of matter, one for each day in the year, it deals in some considerable detail with the necessary work underlying the organisation of a statistical inquiry, with statistical data, involving measurement, classification and tabulation, by hand and by machine, and with the preparation of a great variety of diagrams and graphs. We then find the theory taken up in so far as it concerns the notion of a frequency distribution, the calculation of statistical averages, measures of dispersion and skewness, and correlation, bringing in at the same time the theory of sampling and the calculation of probable errors. Elementary problems on probability find a place, and there is a most valuable chapter on index-numbers. Problems of interpolation, graduation and curve-fitting are dealt with, being preceded by an introduction to the theory of finite differences. This concludes Part I of the book. The second part, entitled Applied Statistics, finds the author giving illustrations of a very large number of practical problems in official statistics, and dealing with population, prices and wages, employment, profit, trade, finance, production, wealth and business statistics. This section should prove of great value to the reader in giving him plenty of practice in the handling of statistics, and introducing him to current statistical publications and to technical statistical work of an advanced character. The illustrations are very full, and include elaborate and detailed tables and charts, taken from various official publications.

No professional statistician can afford to be without the book, which is clearly written, with short paragraphs, in which the salient points are emphasised by being printed in clarendon type, and a

useful summary is provided at the close of each chapter. The author has an undoubted gift of exposition, and the way he has been able to make clear and precise statements within the compass of very few words has enabled him to cover an amount of ground that could be attempted by few people. Naturally he has limited himself, and choosing, very rightly for a book of this character, to deal in greatest detail with the practice of the subject, has had perforce to treat only the elementary parts of the theory. Simple algebraic proofs have been given where possible to hearten the reader, but otherwise the author has been content to state results. The class of reader to whom this book is addressed is not as a rule mathematically equipped to appreciate the whole background of theory, and with few exceptions can be advised to trust the authority of this book. Such exceptions as there are relate to comparatively modern developments of theory, which are gradually, however, finding their way into the text-book, and into current practice. For example, we know that exact theory appropriate for small samples was stimulated by the rather meagre data often possessed by the biologist. Nevertheless, it is not only in this sphere that the sample is small, and there must often be cases in economic statistics of limited data, so that one ought strictly to supplement the statement of probable errors of statistical quantities given on p. 134 by an indication of the limits to the usefulness of the criterion based on the probable error. In particular, the correlation and regression coefficients should be dealt with in greater detail, and a distinction drawn, by the use of a different notation, between the population parameters and the estimates of these derived from a sample of data.

One might be inclined to quarrel with the statement on p. 80, that the arithmetic average is not affected by the addition of or multiplication by a constant quantity, were it not that what the author obviously means is that the constant enters into the average in the same way that it does in the case of the original measures. It is doubtful whether the statement (p. 113) that the theory of skewness is of more importance in biological and other investigations depending upon laboratory experiments than in the fields of economic and social statistics, is true, especially when combined with the further statement (p. 118) that the actual normal distributions of physical objects are rare, except in certain branches of biological science. An important problem that has still to be solved by the economic statistician relates to the fact that series of annual or other data, which form a large part of his material, are not independent, in the sense that

the numerical results of physical or biological experimentation often are, but are successively correlated, and this correlation ought to be taken into account, yet it seldom is.

The section on curve-fitting will prove heavy reading for the student not accustomed to large-scale computations, yet it is important that he should learn how the operations are carried out. A simpler treatment would have resulted from using orthogonal polynomials, and describing a standard procedure such as that recently published by Aitken. As it is, no mention is made of the important problem of testing the significance of the fit, a matter that is perhaps of some theoretical difficulty, but which can nevertheless be carried out quite quickly as a matter of arithmetical routine. The practice of curve-fitting is so widely adopted in economic statistics that fuller information on this point would have been welcome.

J. Wishart

The Industrial Revolution in North Wales. By A. H. Dodd. (Cardiff: University of Wales Press Board. 1933. Pp. xxxi + 439).

Professor Dodd, who is well aware of the ambiguities and misleading associations of the phrase "the industrial revolution," adopts this title as the best short way of describing an account of the economic and social history of North Wales from about the accession of George III to about the middle of the nineteenth century. He has made a thorough and well-proportioned survey of the many printed authorities and a number of manuscripts, and the other subjects are not less adequately treated than those on which he has already published special studies. The book is interestingly written and provided with excellent maps. It will save space to say that Professor Dodd's general conception of his task resembles that of Professor Clapham: he divides his book by subjects and gives a clear, positive description of the development in each. Thus he gives not only a valuable regional history, but also a corrective to those well-known works on his period in which, by too much attention to Lancashire and Yorkshire, a false impression is created of "a rapid victory for steam-power and big industry, accompanied by a hasty concentration of manufactures on the coalfields, and involving the summary demise of scattered trades and handicrafts."

Many readers will be surprised to find how much there is to say about the industrial history of these six remote and thinly populated counties, which, at the beginning of the period, had only

twenty-three market towns between them. The general effect of the modern improvements of transport was unfavourable to industry in North Wales, for although they gave access to new markets, they gave it also to powerful competitors and enabled them to flood with their cheaper products even the once inaccessible markets of North Wales itself. Thus the history of the slate-quarrying industry, which continued to expand until 1881, though increasingly concentrated in Snowdonia, is a lonely exception due to natural advantages. The other purely Welsh industry, the woollen manufacture of Montgomeryshire flannels and Denbigh and Merioneth webs, enjoyed a rising prosperity in the early factory age, the forty years before Queen Victoria's accession, but it too declined in the age of steam-power. Other textile enterprises, such as the cotton manufacture at Holywell, Mold and Llangollen, were extensions of English industries, favoured by the cheapness of labour in Wales, but dependent on other advantages, such as that of water-power, which proved to be temporary. The distinctive language and nationality of Wales throw up sharply the importance of the new capitalists from a distance like the Wilkinsons who were the leaders of the iron industry at Bersham and Brymbo. Thomas Williams, the copper millionaire of Anglesey, was an exception, but the exploitation of copper, as of lead, zinc and chemicals, was largely due to impulses from across the border. Professor Dodd has many useful remarks on the connection of immigrant capital with immigrant labour, the similarity of colliery organisation in Wales and the English Midlands, the stimulus given to coal-mining in Flint and Denbigh by the needs of the local industries, and other instances of the interdependence of economic changes.

There is still room for new work on some aspects of the period. Professor Dodd points out that we do not know how far the three-field system extended into Wales, and that the manuscript collections at Bangor may make possible a re-writing of the history of the enclosures. Something may be done to discover how many of the "spirited proprietors" of the eighteenth century financed their agricultural improvements with profits made in the towns. The business organisation of coastwise shipping is a small subject, but needing investigation. It would, however, be entirely unfair to suggest that the present book is inadequate to its purpose. Further research on the previous period will perhaps alter the perspective in some parts. The boom in lead and copper after 1688, for instance, was due not to the political blessings of the Glorious Revolution (pp. 20, 22), but to the war against

France. We are scarcely in a position to estimate how far the bad health of the poor in George III's reign was due to new evils (pp. 355–6). Once or twice Professor Dodd passes judgments where the criteria used may perhaps be changed if they are more fully examined. It is, for instance, agreed that the expenses of enclosures were too high; but we lack a standard of what would have been a reasonable level of expense. The fluctuations of poor-rates should be brought into relation with changes of prices: they reflect these as well as changes in the number of recipients of relief. But these are adjustments which readers can make for themselves. Professor Dodd's book will serve them well as a standard authority on its subject.

G. N. CLARK

An Industrial Survey of Cumberland and Furness. By JOHN JEWKES and ALLAN WINTERBOTTOM. (Manchester University Press. 1933. Pp. xiv + 175. 6*s*. net or 8*s*. 6*d*. in cloth.)

THE authors of this Survey belong to the Research Section of the Department of Economics and Commerce of Manchester University, and in conducting their inquiries they have had much help from Government Departments, Local Authorities, and, particularly, Employment Exchange Officers. The area is characterised by a lack of industrial diversification. The output of coal was increasing, but that of pig iron was decreasing before the War, and many districts where hematite ore had been raised were exhausted. Shipbuilding and engineering were, however, advancing rapidly, and the population of Furness increased by 14 per cent. between 1881 and 1911. "Before the War this Region was a large exporter of iron, steel and coal, and a substantial proportion of the warships constructed were for foreign countries. Indeed, Cumberland must naturally look to foreign rather than home markets, for its geographical isolation renders competition difficult where long railway haulage has to be undertaken. But export trade has been seriously, and undoubtedly permanently, reduced, for reasons which have brought depression to the heavy export industries of Great Britain as a whole." Basic steel has successfully competed with the acid steel made from hematite, improvements in coal and ironstone mining have reduced the demand for labour, and "the post-war reorganisation of the iron and steel and shipbuilding industries appears to have created further elements of instability and uncertainty on the West Coast." Through mergers only three large iron and steel

concerns remain, and of these the United Steel Cos., Ltd., has also modern iron and steel plants in Yorkshire and Lincolnshire. The Vickers-Armstrong concern has shipbuilding yards in other centres besides Barrow.

"It seems impossible," say the authors, "to escape the conclusions that the future of these industries is far from promising, and that the course of events suggests a continuance of the general industrial decline which has dated from about 1880 in Cumberland and from the end of the War in the Furness district." The next chapter deals with the local distribution of unemployment, showing that there are "almost derelict areas in which large bodies of labour continue to exist without the hope of future employment," such as Cleator Moor and Maryport. The effects on local finance have been calamitous, and the rate levied in Cumberland to meet the net expenses of the Public Assistance Committees in 1931–2 was 4*s*. 1*d*., compared with 2*s*. 8*d*. for all counties in England and Wales, excluding London. Four suggestions for the expansion of employment outside the staple industries of the area are then considered—the hydrogenation of coal, the use of coke-oven gas for town's purposes, the development of Cumberland as a holiday centre, and the development of agriculture. The commercial possibilities of hydrogenation are still doubtful, and, as the great bulk of Cumberland coal is used for industrial purposes or is exported, the production of an additional 800,000 tons annually to supply an economic hydrogenation unit would probably cause recourse to poorer and more expensive mines. The use of coke-oven gas is impracticable, and the tourist industry would yield little employment. Mr. Dinsdale, of the Farm Economics Branch of Armstrong College, in a later chapter on "Agriculture," doubts the possibility that "Cumberland agriculture will be in any better position than other areas to absorb any appreciable part of the unemployed labour in the county," though he agrees that recent State policy, if continued, will "bring greater stability to agricultural markets."

There is more hope in industrial transference. The population of the Survey Region fell by about 9 per cent. between 1921 and 1931; in the industrial Barrow-in-Furness and Cleator Moor districts the fall was about 15 per cent. Emigration overseas, on the other hand, has declined. The Ministry of Labour transfer schemes for men have failed, but those for boys have been encouraging in their results. Training is important, and there are some useful notes under this head. Finally, with a view to a long-range social policy, it is suggested that the State should

maintain continuous investigations into economic movements, should "play a much larger part in regulating the initial location of new industries or businesses," should establish compensation funds in industries based on terminable local resources, and should extend the liability of employers for guarding against dislocation of the labour market. The policy of Local Authorities in maintaining social services is also considered.

The second part of the Report contains a more detailed account of population and employment before 1921 and after 1923 and special surveys of iron and steel, coal-mining, iron ore, coke ovens, shipbuilding and engineering, agriculture, and local finance. There are also six appendices, mainly statistical.

This is a most excellent Survey, and it is quite insufficient to say that it is highly creditable to its compilers.

HENRY W. MACROSTY

Cotton Industry and Trade in China. By H. D. FONG. (Tientsin: Nankai Institute of Economics. 2 vols. $5.)

RECENT writings on China have stressed the almost complete absence of facts concerning the economic life of that country, and the danger of generalisations based upon the necessarily restricted sample inquiries which are now being carried out by a number of private investigators. Much more, however, is known of the large-scale factory industries than of agriculture or of the domestic industries and, in these volumes, Professor Fong has drawn together a mass of statistical material relating to the cotton industry and has supplemented it, particularly in his discussion of labour conditions, by reference to special investigations, of his own or of other workers, mainly carried out in Shanghai or Tientsin. Whilst it may be objected that the statistics are over-elaborated (one is rarely given an average; it is nearly always the mode, the median and the mean; and at one point the cotton-workers are classified by height and weight) and that there is little analysis of the information as it stands, nevertheless the author has contrived to create a picture which throws much light upon the changes in the world distribution of the cotton industry and upon its probable future trends.

The Chinese factory cotton industry is growing rapidly. In 1931 it employed about 300,000 workers and possessed about 4,000,000 spindles and 30,000 looms, the bulk of the machinery working two shifts of twelve hours in each day. Progress, it is true, has been checked since 1925 because of internal political and commercial disorder, but even so the number of spindles

increased fourfold between 1913 and 1930 and the number of looms threefold. Again, although many of the mills are owned by the Japanese or British, and although these mills are usually larger and more efficient than those operated by Chinese owners, yet, in 1930, the Chinese spindles and looms amounted to more than one-half of the total recorded for the whole country. It is plain that, given the establishment of law and order, a great cotton industry will develop in China catering for the vast home market, which is mainly supplied now by imports or by the products of the hand-looms, and imperilling the Japanese cotton industry in the way in which the Japanese cotton industry has ousted Lancashire goods from many markets.

Perhaps the most original section of Dr. Fong's inquiries is that which deals with labour conditions and the results arising from the impact of a system of industrialism upon workers mainly drawn from agriculture. It can hardly be said that China is suffering any less from industrial revolution than did England in the eighteenth and nineteenth centuries. The average daily wage rate for cotton-workers in Shanghai is 49 cents for a twelve-hour shift; women and children are allowed to work at night; workers are given only two rest days per month; in some mills about one-fifth of the workers are between the ages of eleven and fifteen years. "In some instances contractors obtain young children from the country districts, paying the parents $2 a month for the services of each child. By employing such children in the mills and factories the contractor is able to make a profit of about $4 a month in respect of each child. These children are frequently most miserably housed and fed. They receive no money and their conditions of life are practically those of slavery." In one mill investigated in Tientsin with an average working force of 6,239, there were 2,804 surgical cases dealt with in one year by the mill-hospital, which speaks of the absence of safety regulations.

It will probably be argued that one must see conditions of this kind in their right perspective. It is true that trade unions are beginning to make their appearance, but they are still very weak. It is true that the Factory Act, which nominally came into force in August 1931, provides for an eight-hour day and other reforms, but apparently it is nowhere yet enforced. And perhaps it is true that the standard of living among the industrial workers is higher than among the millions of those living by agriculture. But it is doubtful whether anything can be much worse than the conditions to which Dr. Fong draws attention by

quoting the Report of the Shanghai Child Labour Commission: "Children are mostly employed in the spinning department, and in the great majority of cases have to stand the whole time they are at work. It is difficult to state definitely the lowest age at which the children commence work. The Commission, however, saw many children at work who could not have been more than six or seven years of age. Some of these children are not on the pay-rolls, but are allowed to be brought by their mothers in order that they may be under their care. In many mills the conditions during the night-shift are, according to Western ideas, most unusual. Rows of baskets containing babies and children, sleeping or awake as the case may be, lie placed between the rapidly moving and noisy machinery. Young children, who are supposed to be working, but who have been overcome by fatigue or who have taken advantage of the absence of adequate supervision, lie asleep in every corner, some in the open, others hidden in baskets under a covering of raw cotton."

Other aspects of the Chinese cotton industry are treated in detail. A statistical study of the size of cotton mills shows how very much smaller they are, on the average, than those found in Lancashire. There is also a description of China as a cotton-growing area and an account of the marketing processes in the different sections of the industry.

JOHN JEWKES

The Economic Tendencies of To-day. By S. VILJOEN. (P. S. King. Pp. 251. 10*s.* 6*d.*)

THESE chapters on Population, Enterprise, Transport and Power, Organisation, and Policy are based on a wide survey of recent literature, and form an interesting and readable study of their subjects. The use of statistics is careful and selective, and the book, though mainly descriptive, has been compiled with critical judgment.

History of Greek Public Finance. By A. M. ANDRÉADÈS. (Athens, 1928.) Translated by C. N. BROWN. (Cambridge: Harvard University Press; London: Humphrey Milford. 1933. Vol. I, pp. xx + 412; 29*s.* net.)

THE original of this translation was reviewed in the ECONOMIC JOURNAL of December 1930 (p. 686). This is described as a "revised and enlarged edition," but the new matter incorporated is not of great quantity or importance. The translation, by the Associate Professor of Classical Languages in the College of the

City of New York, is competent. But the common occurrence of minor verbal alterations in the text, which, so far from clarifying or simplifying the original, are generally unnecessary and sometimes definitely inferior in precision and discrimination, stimulated the reviewer's curiosity to count them in a few sample passages; on pp. 227–31 (text only, excluding footnotes) he counted fourteen, and on pp. 253–4 nine. Frequently these inexactitudes miss the principal implication of the Greek word or phrase; examples can be found on pp. 61, 79, 138, 147, in the common translation of δημόσιον by "state" instead of "treasury" or "exchequer," etc. Sometimes they amount to errors sufficiently grave to make the clause in which they occur pointless or ridiculous, *e.g.*, on pp. 8, 107, 249, 252, 372, etc. The English is not always very happy (*e.g.* "cult budget, "evaluation" for valuation, "quite universally"); in this connection, is it too late to protest against two vulgar solecisms which have over-run American and are over-running English economic literature, namely, the use of "loan" as a verb instead of "lend" and the meaningless use of "per capita"- a technical term of the Roman law of succession, with an entirely different meaning—as equivalent to "per head" or "per caput"? Also, is it impertinent to suggest that a numeration of chapters, sections and sub-sections running consecutively through the book gives greater facility in reference than a numbering from one upwards of the chapters of each Part, the sections of each chapter and the sub-sections of each section?

G. DUNCAN

Trinity College, Dublin.

World Economic Survey, 1932–33. (League of Nations: London, Allen and Unwin. 6*s*.)

THE Survey for 1932–33 continues the similar volume published in September 1932. It gives in a brief compass a comprehensive survey of the major economic problems of the world from the meeting of the Lausanne Conference to the end of July 1932. Prices, production, international trade, tariff policy, business profits, public finance, banking and monetary policy, indebtedness, and international balances of payments are among the subjects covered.

The Survey is carried up to date and the final chapter includes a Report of the Proceedings at the first session of the Monetary and Economic Conference, a description of recent legislation in the United States and a summary of the economic situation at the end of July.

Included in the volume are statistical estimates of the decline in world trade, the movement of business profits during the depression, the total amounts of international indebtedness outstanding and the fall in different classes of production. The various steps taken to remedy the crisis—the progress made in raising prices, adjusting indebtedness, reviving production, and balancing national budgets—are described and measured statistically.

The estimate of the present situation given in the final chapter draws attention to the considerable recovery that has already taken place in many countries; but points out that the problems of international economic co-operation remain to be solved. (*Communicated.*)

A Note on Australian Finance

With its promise of remissions in taxation amounting to £7·5 m., and increases in expenditure of £1·7 m., the Commonwealth budget is in striking contrast to most budgets to-day.

There are two main reasons for the improvement: first, the degree of recovery, stimulated largely by Australia's bold policy,[1] and second, the somewhat favoured position of the Commonwealth Government as compared with the States. During nearly the whole of the financial year 1932–33 export prices in sterling were still about 55 per cent. below their 1928 level. Nevertheless, some recovery in the general economic position had taken place, and the budget closed with a surplus of £3·5 m., despite the original estimate of a deficit of £1·3 m., and special relief expenditure to primary producers of £2·25 m., and concessions to taxpayers of £1 m. The main sources of the improvement in the budget were increases in customs and excise duties, sales tax, and income tax. All these clearly indicate an increase in income and spending power. Imports were £stg. 57 m., compared with £stg. 45 m. in the previous year. With exports at £83·5 m., there was sufficient surplus available to meet overseas obligations. We may assume, therefore, that imports were not on the whole excessive, and the improved receipts from the sales tax may similarly be regarded as evidence of a slight but sound improvement in internal trade. With export prices now about 30 per cent. above their level during the greater part of last financial year, the improved budget position rests upon a fairly secure foundation.

The State budgets, on the other hand, have not shown such buoyancy. At the Premiers' Conference held early in June, it was agreed to allow total deficits of £8·5 m., made up as follows:

	£000.
New South Wales	3,950
Victoria	800
Queensland	1,850
South Australia	1,100
Western Australia	750
Tasmania	50

The total is £1·5 m. less than the estimated deficits presented to the Conference, and more than £10 m. below the estimates

[1] See my articles in the Economic Journal, December 1931 and December 1932.

made on the same date of the previous year. By retaining taxes and charges for business enterprises at the levels ruling in 1931–32, and by transferring some of the Commonwealth surplus to the States, it would have been possible to balance all budgets, including the sinking fund payments of approximately £8 m. This would have been "sound" finance, but it would have offered little encouragement to enterprise. The Loan Council wisely decided to allow State deficits of £8·5 m., but these must be set against sinking fund payments of £8 m., which are statutory under the Financial Agreement. It has been possible for some of the States, notably New South Wales, to grant substantial remissions in taxation and railway freights, and yet to live within the limits fixed by the Loan Council. It should be added that any savings on overseas conversion loans will go to reduce the deficit. Maturing loans to the amount of £22 m. were converted in 1932 and early 1933, and £49 m. out of £84 m. of "callable" loans had also been converted up to the end of October 1933. The total savings amounted to nearly £stg. 1·3 m., or £A. 1·6 m.

Financial policy during the crisis rather favoured the Commonwealth in comparison with the States. The main burden of unemployment and of losses on State enterprises fell upon the States, whose avenues for new taxation were rather limited. On the other hand, the reductions in wages and salaries and the general retrenchment made great economies possible, and the fixed payment of £7·6 m. for interest on the State debts by the Commonwealth remained unchanged. The Commonwealth, in fact, made total grants of nearly £12·5 m. to the States in 1932–33, compared with £11·5 m. in 1929–30. But the Commonwealth benefited by (*a*) the concession of £stg. 5·5 m. on account of the war debt, (*b*) its high proportion of internal to external debt, and (*c*) its ability to impose new taxes like primage and sales tax to compensate it for the loss of revenue. The States claim that a further general adjustment in financial relations of the Commonwealth and the States is required, and this problem will doubtless be considered at the Constitutional Convention early next year.

In general, we may say that Australia is budgeting for a moderate deficit as a whole, relying upon the recovery that will follow the rise in export prices to restore revenue. The total revenue of the States, other than Commonwealth subsidy, is approximately £100 m., and a general recovery of less than 10 per cent. would balance all budgets, including the payment of sinking fund. This is not an unlikely development, and the

budgetary and banking policy is likely to encourage a modest degree of recovery. The following points are important:

(*a*) The State reductions in railway freights and unemployment tax on income, and the Commonwealth reductions in company taxes, general income tax, sales tax and primage duties, all make for reduced costs of industry and greater spending power in the hands of consumers.[1]

(*b*) The reduction in primage duty and the adjustment of the tariff on British imports means a maximum fall in tariff duties on these goods of 17½ per cent. In a recent inquiry the Tariff Board found that Australian costs, even in the depreciated currency, had fallen more than British costs during the depression. It recommended a reduction in all *ad valorem* duties of one-fourth, to a maximum of 12½ per cent. The reduction was not to apply to goods from countries with currencies depreciated substantially more than sterling. The Government has applied the recommendation to British goods only. This is a move in the right direction, though it will not satisfy critics of tariff policy, who hold that, apart from the effect of exchange, the tariff is on the whole too high.

(*c*) The Loan Council continues to arrange for the finance of Government deficits through Treasury bills, though it will agree to fund bills if the market can supply long-term loans at low rates in excess of the sums required for the annual works programme. This is a happy compromise on banking and financial policy that was the subject of some controversy between the Commonwealth Bank and the Governments for a while at the end of last year.

(*d*) The Government has cleared away all doubts as to its monetary policy. After referring to the unfavourable effects of an over-valuation of sterling upon Australia as a debtor country, the Treasurer stated that when the ultimate return to the gold standard takes place, "it is import-

[1] The reductions in Commonwealth taxation are as follows:

	£000.
Companies' tax	585
Life Assurance Companies	710
15 per cent. Personal Exertion reduction	200
Fall from 10 per cent. to 5 per cent. in special tax on property	1,110
Land tax	400
Reduction in primage duty, sales tax and customs duties	4,330

With some minor additional concessions, the total in a full year will amount to £7·5 m.

> ant that we should retain the right to fix our monetary unit at a point consistent with our own price level at the appropriate time." Australia is therefore not to make heroic efforts to return to parity with sterling, but will continue to use her freedom of action in monetary policy with discretion. The relation of the Australian pound to sterling will be determined by the level of prices at which export production can be carried on with reasonable profit.

Some restoration of expenditure, particularly for old age pensions and the lower salaries in the Commonwealth public service, is provided for in the budget. It is desirable that improving economic conditions should be followed by the elimination of the most oppressive forms of economies. Taking the budget as a whole, and the general financial and economic policy of the Commonwealth, it will be generally agreed that the Government is succeeding in combining political expediency and economic principle to give relief where it is most needed and most likely to encourage enterprise.

D. B. COPLAND

October 30, 1933.

OBITUARY

VLADIMIR J. GELESNOV

VLADIMIR J. GELESNOV, one of the most distinguished of contemporary Russian economists, who worked both under the old regime and under the new, died suddenly on the 30th August, 1933, at the age of 64. His academic career began in Kiev, where he was appointed to a teaching post in 1896. He early acquired exceptional popularity amongst the students, and his public lectures were largely attended, being afterwards published under the title of *Sketches on Political Economy*, a book which ran through many editions in Russian and was translated into German. His teaching was mainly directed to labour problems and was strongly influenced by Marxist doctrine. Whilst, however, he accepted the greater part of the Marxist doctrine, he was not a Marxist in the strict sense of the word, but was inclined rather to a synthetic theory of economics, an inclination which was reflected in his distinguished critical study *Main Tendencies in Wage Theory*, published in 1904.

In 1905 he left Kiev for Moscow, where he taught at the Moscow Agricultural Academy for the next twenty years, also

lecturing in Moscow University at the Commercial Institute and at the Extension University founded by Shaniavsky. He was one of the editors of Granat's *Encyclopædia* (A. T. Granat also died recently—in September 1933). Gelesnov, however, never restricted himself solely to academic activities, taking an active part in the Co-operative Movement, especially in the drafting of the project of the Moscow–Narodny Co-operative Bank.

He was a leader in the proceedings and publications of the Cuprov Economic Society; and after the revolution he paid much attention to monetary reform as well as other matters. The controversy concerning the definition of economic goods and the boundaries of economics induced him to write interesting articles in the Russian Journal *Voprosy Konjunctury* and in the *Archiv für Sozialwissenschaft* (B. 57, 4, 3: "Ueber das Naturale und das Wertmässige in den wirtschaftlichen Erscheinungen").

Yet perhaps his deepest interest lay in the history of economic thought. He published a voluminous investigation on the History of Economic Doctrines in Ancient Greece, one of the best works on that question. After the revolution he undertook a monumental work on the History of Russian Economic Thought —a field almost untrodden hitherto. He has unhappily died before he had completely finished this most interesting scientific undertaking. Large parts of this work, however, namely, the sections on the Russian Agriculturists of the eighteenth century, and on Financial and Economic Questions in the first third of the nineteenth century, were almost prepared for the press. Some of the results of his research were also published in his article on "Recent Russian (not Marxist) Theoretical Literature" in the *Wirtschaftstheorie der Gegenwart* (edited by H. Mayer, B. I. 1927).

Russia has lost in him one of her finest economists and historians of economic theory, and his numerous colleagues and disciples a beloved and highly esteemed friend.

T.

Current Topics

The following have been admitted to membership of the Royal Economic Society:—

Abbell, M.	Armitage, L. B.	Azikiwe, B. N.
Abrams, J. J.	Armstrong, W. B.	Bamford, A. E.
Albery, A. E.	Arur, S. R. B.	Banks, W. L.
Alison, C. A.	Austin, F. W.	Barlow, A. S.

Barrie, A. B.
Bates, A. F.
Baxter, A.
Bell, S.
Bernardi, Dr. M. de.
Bhabha, C. H.
Bond, E. C.
Breen, L. E.
Briggs, A.
Buchanan, O. C.
Buchett, P. J.
Buckland, W. R.
Butterworth, G. N.
Calver, J. W. A.
Carlton, F. B.
Carruthers, T. B.
Caunce, C. W.
Chavero, A.
Clark, C. G.
Clarke, D. K.
Cohen, M.
Collado, E. G.
Cooper, C.
Cormack, L. J.
Cotter, R. G.
Cowles, Alfred.
Craig, J. I.
Cresswell, L. E.
Creswell, M. J.
Crivelli, R. L.
Cunliffe, A.
Dacey, W. M.
Darrall, Rev. C. N.
Davies, Rev. D. J.
Delcay, S.
Desai, G. L.
Dey, S. K.
Dixon, R. S.
Dobson, G. A.
Dravid, N. K.
Duponsel, P. de la H.
Dutta, B. B.
Eastwood, F. H.
Edwards, A.
Elias, A. H.
Ethell, A.
Exelby, H. R.
Fairweather, W. L. B.
Farmar, G. A.
Financial Attaché of the French Embassy in London.
Gangopadhyay, B.
Gardiner, F. L.
Garrard, C. C.
Gartside, L.
Giffin, J. H.
Gilbert, J.
Gilbert, J. C.
Gilbert, S. H.
Gilchrist, P.
Gonsalves, C. E.
Goodwin, Rev. E. B.
Goudriaan, Jr., Prof. Dr. I. J.
Griffith, T.
Groom, F. E.
Halls, F. S.
Ham, Prof. W. T.
Hare, O.
Harpham, W.
Hayne, Miss L. D.
Helps, E. H.
Hewlett, J. H.
Hill, A. J. H.
Hillmer, G. P.
Holmes, R.
How-Martyn, Miss E.
Huang, T. E.
Hunter, W. E.
Hutton, D. S. S.
Jackson, J. D.
Johnson, T. E.
Johnston, J.
Jones, A.
Joyce, G. J.
Jutila, Prof. K. T., Ph.D.
Kakoyannis, G. E.
Kalyanasundram, T.
Kamat, C. M.
Kanga, A. F.
Kavanagh, B.
Kemény, Dr. D.
Kettle, D. F.
Khare, V. L.
Khérian, Prof. G.
Kong, J. G.
Laight, J. C.
Lattimer, Prof. J. E.
Lawrie, R. M.
Lea, A. L.
Leedale, S. H.
Lemon, D.
Linders, Prof. F. J.
Lloyd, D. M.
Lodge, J. E.
Low, C. H.
Lubin, Dr. R.
Lumsden, B. S.
Lush, A. J.
Madge, D. J.
Marshall, W. A.
Martin, W. S.
Matthews, S. A.
Maverick, Prof. L. A.
Mayer, Dr. Hans.
Mazumder, R. N.
Merrifield, R. S.
Michael, Dr. H.
Milligen, J. H. C.
Mitra, S. C.
Montgomery, R.
Nagle, J. C.

Naik, S. R.
Nalaseth, J. M.
Nathan, J. J. G.
Nayak, P. S.
Neider, Dr. H.
Nelson, B.
Newman, T. S.
Oakley, H. W.
O'Keefe, J. A.
Ong, Ho Seng.
Pahwa, S. S.
Pall, Dr. M. S.
Panday, F. R.
Parker, J. S. F.
Peacock, R.
Pezzani, H. M.
Pierpoint, C. T.
Potter, P. S.
Rathbone, B. L.
Read, A. W.
Redfern, M. G.
Rez, A.
Rivers, J. H.
Roberts, H. C. R.
Rolfe, A. G.
Sadgrove, W. A.
Samson, H. G.
Sethna, M. J.
Shackle, G. L. S.
Shelley, H.
Sheppard, K.
Sherratt, Rev. J.
Sidiki, H. A.
Singh, D.
Smith, L. M.
Smithies, A.
Srikantaiya, S.
Staehle, Dr. H.
Sterling, H. H.
Subrahmanyam, N. V.
Sufian, M. M.
Swaine, G. B.
Symons, W. G.
Tarachand, G'M. F.
Tarrant, R.
Tasker, R. E. N.
Tate, W. E.
Thompson, E.
Thomson, J. R.
Thucker, V. J.
Vooys, Prof. I. P. de.
Wallace, A. T.
Warren, D. J.
Watt, Lieut. J. H. S.
Weitzner, E.
Whelehan, J. K.
White, E.
White, E. R.
White, H. J.
Whitehead, G.
Wilbé-Jones, Rev. K.
Wilson, Capt. L. E.
Winram, G. K. W.
Wood, J. H.
Wood-Simons, Miss M.
Yu, Tsaiyu.

The following have compounded for life membership of the Society :—

Banarji, B. K.
Bashir, S. M.
Berridge, Dr. W. A.
Cairncross, A. K., Jr.
Charles, A. G.
Cheang, K. Z.
Evans, A. A.
Goodall, F. H., M.B.E.
Hart, W. T.
Jeffrey, J.
King, F. N.
Marquand, H. A.
Marvin, D. M.
Massey, P. H.
Mills, R. A.
Minoletti, Dr. B.
Morgan-Jones, G. P.
Narayanan, V.
Neubauer, Dr. J.
Patil, V. N.
Rahn, Dr. R.
Smith, J. McD.
Spafford-Jones, G. W.
Suviranta, Dr. B.
Vestey, The Honble. S.
Walker, E. R.

The following have been admitted to Library membership of the Society :—

Agra College Library. (Composition for fifteen years.)
Birmingham Public Library. (Composition for fifteen years.)

Freiburg University. (Composition for fifteen years.)
Handelshogskolan i Göteborg.
Ilford Central Library.
Istituto Nazionale delle Assicurazioni, Rome.
London School of Economics. (Composition for fifteen years.)
Mysore University Library.
New College, Oxford. (Composition for fifteen years.)
New York Public Library.
North-Western Polytechnic Library, London.
Sarah Lawrence College Library, Bronxville, New York.
School of Commerce and Finance Library, St. Louis University.
State Teachers College Library, New Jersey.

We much regret to announce the death of Dr. F. Bernis of the University of Salamanca, for many years past the Society's Correspondent for Spain.

At the Leicester Meeting of the British Association (September 6–13), Professor J. H. Jones, whose address on "The Gold Standard" is printed above, presided over the deliberations of Section F (Economic Science and Statistics). The contributions to the proceedings ranged over a wide field, including a survey of "The Economic Position of Burma" by Sir George Buchanan; an account of "The Economic Theory of Patent and Copyright Law" by Professor Arnold Plant; an examination of "Types and Supply Price of the Entrepreneur and Business Administrator" by Professor Sargant Florence, and a discussion of "The Problem of Business Recovery" by Mr. E. L. Hargreaves. Sir Arnold Wilson spoke on "The Effect of Suez Canal Dues upon Inter-continental Trade" and demonstrated that the high tolls of the Suez Canal were tending to divert traffic from this route. A topical and valuable survey of the work of the new Development Boards was contributed by Professor Hallsworth, whilst other papers dealing with matters of topical interest were those of Mr. J. Sykes on "Public Expenditure and Public Works" and of Mr. Gilbert Walker on "A Rational and Economic Division of Function between Road and Rail." In addition there was a discussion on "Technological and Economic Progress" opened by Mr. R. F. Harrod, Professor J. A. S. Watson and Dr. Fenelon.
In the afternoons there were four sessions (Section F*) dealing

with problems of business organisation and administration. The first of these sessions was devoted to "Organisation as a Technical Problem"; the contributors being Major L. Urwick and Mr. A. B. Blake. During the second session, papers were read on "The Rôle of Accountancy in Scientific Management" by Professor Annan and Mr. F. de Paula. The psycho-physiological requirements of modern factory equipment formed the subject of the third session during which Dr. G. P. Crowden and Dr. G. H. Miles read papers. In the last session Mr. L. Neale and Mr. G. I. Akeroyd discussed the subject of distributive organisation.

In addition to the proceedings of Section F it may be of interest to record that one of the general evening discourses was delivered before a large audience by Sir Josiah Stamp, who took as his title "Must Science Ruin Economic Progress?" It must be now many years since an economic subject has been selected for one of these discourses. During recent meetings of the Association much attention has been focussed on this problem of the relation of science to social progress, and the General Committee has now passed a resolution requesting the Council to consider by what means the Association within the framework of its constitution may assist towards a better adjustment between the advance of science and social progress with a view to further discussion at the next meeting. In 1934 the Association will meet in Aberdeen from September 5 to 13. Particulars of the arrangements for Section F can be obtained from the Recorder of the Section—Dr. K. G. Fenelon, College of Technology, Manchester 1—to whom also any offers of papers should be sent.

We have received, as we go to Press, the volume of *Economic Essays in honour of Gustav Cassel* (pp. 704: 30*s.*), which is published by Messrs. Allen and Unwin. This volume was presented to the eminent economist on the occasion of his retirement in October from the Chair at Stockholm to which he has brought such great distinction, and round which he has seen the growth of a school of Swedish economists worthy to carry on the tradition. We hope in a future number to review this volume, the contributors to which come from all countries. The Scandinavian writers are Akerman, Bagge, Brisman, Frisch, Heckscher, Hilgerdt, Keilhau, Kock, Lindahl, Myrdal, Ohlin, Pedersen, Pipping, Suviranta, and Zeuthen. The Italian contribution comes from Einaudi, Fanno, Fubini, Porri, and del Vecchio. America is represented

by Angell, J. M. Clark, Commons, Douglas, Graham, Hansen, Hollander, Kemmerer, Knight, E. M. Patterson, Seligman, and Snyder. The French writers are Dupriez, Landry, Laufenburger, Lescure, Raffard, and Semiand; the German, Amonn, Helander, Neisser, and Röpke; the Hungarian, Englis and Varga; the British, Stamp, Loveday, Gregory, and Macgregor; the Dutch, Valk and Verrijn Stuart. This symposium, mainly on the new issues of economic theory which have presented themselves since the War, is a fitting tribute to the achievement of Cassel.

At a meeting of the Society for Cultural Relations between the peoples of Great Britain and the U.S.S.R. (commonly known as the S.C.R.), held in London on October 25th, it was resolved that, in addition to the Education and Science Sections, there should be an Economic Section. The objects of the Section are to further the study of modern Russian economic theory and methods—including such subjects as the preconditions of planning, the structure of industry and methods of industrial control in the Soviet Union, and the financial system, including the price mechanism; to make a survey of current publications on Russian economic theory, conditions and policy; to suggest and arrange for the translation into English of Russian economic writings, and publication in full or summary; and to direct attention to suitable lines of investigation to be undertaken by economists visiting the Soviet Union. A provisional committee was appointed to hold office until February, of which Mr. H. Stanley Jevons is chairman, and Mr. S. Goldman, research scholar at the London School of Economics, is honorary secretary. Six meetings of the Section for the discussion of papers will be held in London during the present season from November to April. The minimum annual subscription to the Society for Cultural Relations is 5*s*., and to the Economic Section an additional 2*s*. 6*d*. Any person wishing to join the Society, which has a lending library, and the Economic Section should communicate with the Secretary, S.C.R., at 1 Montague Street, London, W.C.1.

Mr. Aldo Crosara writes as below with reference to the following passage in Professor Robbins's article on the representative firm (Economic Journal, September 1928, p. 387): "The Marshallian conception of a representative firm has always been a somewhat unsubstantial notion. Conceived as an afterthought—so far as I am able to discover it does not figure at all

in the first edition of the *Principles*—it lurks in the obscurer corners of Book V, etc." :—

"In the first edition of *The Principles of Economics*, 1890, Book V, Chapter IV, paragraph 5, p. 413 and following, Marshall seems without doubt to present the conception of the representative firm under the expression 'representative business.' He speaks in this passage of firms effectively managed with ability less or more than normal as of 'eddies in the surface of a great tide,' suggesting that businesses managed with normal ability actually and largely prevail in the total supplies of a commodity. The paragraph itself is headed 'We must select as representative a business which is managed with normal ability; and so as to get its fair share of the economies resulting from industrial organisation'; and the text specifies the economies as being 'those economies of production both in the internal arrangement of the factory and in its external, etc.'"

The next Annual Conference of the Association of University Teachers of Economics will be held at Devonshire Hall, Leeds, during the week-end 5th–8th January, 1934. Further particulars will be sent to members of the Association early in December. Any enquiries from intending members should be addressed to the Hon. Secretary (Mr. Stanley Parris, University College, Cardiff).

RECENT PERIODICALS AND NEW BOOKS

Journal of the Royal Statistical Society.

Vol. XCVI, Part IV. *The Causes of Fluctuations of Industrial Activity and the Price-level.* H. S. JEVONS. *The Measurement of Price Changes.* A. W. FLUX.

Economica.

AUGUST, 1933. *A Note on the Theory of Money.* D. H. ROBERTSON. *Colonial Administration.* LORD LUGARD. *The Constitutional Importance of the "Commissioners for Wool" of* 1689; Part II. R. M. LEES. *The Definition of the Concept of a "Velocity of Circulation of Goods."* A. W. MARGET. *The Influence of Position in Sibship on Juvenile Delinquency.* M. FORTES.

Review of Economic Studies.

Vol. I, No. I. *Pareto and Pure Economics.* U. RICCI. *The Theory of Money and the Analysis of Output.* J. ROBINSON. Argues that Keynes' *Treatise* is not really concerned with monetary theory, but with disequilibrium in real output. *Some Notes on Monetary Theories of the Trade Cycle.* G. L. S. SHACKLE. *The Diagrammatic Representation of Elasticity of Demand.* A. P. LERNER. *Taxation and Returns.* L. M. FRASER. A discussion of the doctrine that to tax increasing cost industries and subsidise decreasing cost ones would increase welfare. *Profit in American Economic Theory.* W. S. HOPKINS. *Notes on Elasticity of Substitution.* P. M. SWEEZY, A. P. LERNER, R. F. KAHN, J. R. HICKS.

International Labour Review.

AUGUST, 1933. *The Fall of the Birth-rate and its Effects on Social Policy.* L. HERSCH. *The Development of Unemployment Relief in Germany.* O. WEIGERT. *Disablement Benefit under the British Health Insurance System. International Statistics of Rents in Certain Towns in* 1932.

SEPTEMBER, 1933. *The Development of Unemployment Relief in Germany,* II. O. WEIGERT. *Wage Changes in the U.S.A.,* 1929–33.

OCTOBER, 1933. *Impressions of a Visit to India, Iraq, Persia, and Turkey.* C. W. H. WEAVER. *Landless Agricultural Workers in Hungary.* M. MORICZ. *Recent Social Trends in the United States. Recent Official Inquiries into Wages and Hours of Work in Various Industries in Germany.*

South African Journal of Economics.

JUNE, 1933. *The Gold-mining Position.* SIR R. KOTZE. *Die Landboukrediet- en Landbouskuldvraagstuk.* E. H. D. ARNDT. *Some Aspects of the Marketing of Farm Products in South Africa.* E. DAVIS. *Financial Problems of Provincial Government in South Africa.* J. H. BOTHA. *The Transkei Trader.* E. S. HAINES.

SEPTEMBER, 1933. *Vestiging en trek van die Suid-Afrikaanse Naturelle-bevolking onder nuwere Ekonomiese Voorwardes.* J. F. W. GROSSKOPF. *Economic Aspects of the Report of the Poor-whites Commission.* W. H. HUTT. *Some Notes on the Optimum Size of Population.* H. SONNABEND. *The Excess-profits Tax on Gold and some of its Implications.* Sir R. KOTZE. *The Boom in Kaffirs.* C. S. RICHARDS.

The Economic Record.

JUNE, 1933. *Factors of the Flow of Money and their Variance.* D. T. SAWKINS. *Bulk Handling.* S. M. WADHAM. *Financial and Economic Policy of the Stevens Government.* F. A. BLAND. *New Zealand Customs Tariff Policy.* E. P. NEALE. *Pioneer Settlement.* G. L. WOOD. *Post-war Unemployment in New Zealand.* J. P. BELSHAW. *Small Holdings for Unemployed in New Zealand.* D. O. WILLIAMS. *The Commonwealth Land Tax.* J. M. GARLAND. *Population Trend in Australia.* H. J. EXLEY. *State Socialism in Victoria.* W. L. RAWS.

Index (Stockholm).

AUGUST, 1933. *Double Taxation—a Trade Barrier.* M. S. CARROLL.

SEPTEMBER, 1933. *Swedish Government Loans.* K. HILDEBRAND.

OCTOBER, 1933. *The World's Staples.* XIX. *Artificial Fertilisers.* P. WALLER.

Skandinaviska Kreditaktiebolaget.

OCTOBER, 1933. *Present-day Gold Standard Problems.* G. CASSEL. *The Swedish Banks in their Relation to Industry. Sweden's Balance of International Payments*, 1925–32.

Quarterly Journal of Economics.

AUGUST, 1933. *The Economic Effects of the Gold Discoveries upon South Africa*, 1886–1910. D. W. GILBERT. *The Unity of Veblen's Theoretical System.* K. L. ANDERSON. *The Demand for Labour.* A. E. MONROE. *Gold Production and the Price Level.* J. T. PHINNEY. *Tax Shifting and the Laws of Cost.* E. D. FAGAN.

Journal of Political Economy.

AUGUST, 1933. *Population Doctrines in the United States.* I. *Anti-Malthusianism.* J. J. SPENGLER. *Interrelation of Demand.* H. SCHULTZ. *Open Market Buying as a Stimulant for the Bond Market.* J. C. DOLLEY. *American Industry Abroad since 1929.* F. A. SOUTHARD. *Mercantilism as Liberalism.* H. C. SIMONS.

Review of Economic Statistics.

AUGUST, 1933. *Business Cycles and Municipal Expenditures.* D. W. GILBERT. *A New Index of Industrial Production and Trade.* W. M. PERSONS and LE BARON R. FOSTER.

American Economic Review.

SEPTEMBER, 1933. *Unemployment Insurance and the Wisconsin Act.* W. A. MURTON. *Congressional Tariff Theory.* F. W. FETTER. *Horse-power Equipment in U.S.* C. S. DAUGHERTY. *Malynes and the Theory of Foreign Exchanges.* E. A. J. JOHNSON. *Regulation of Brokers' Loans.* W. J. EITEMAN. *Foreign Investment and National Gain.* C. R. WHITTLESEY. *The Hungarian Thrift-Crown.* L. L. ECKER.

Annals of the American Academy of Political and Social Science.

SEPTEMBER, 1933. *The Crisis of Democracy: a broad survey of the operation of Government in the United States.* Articles by various writers on the meaning of democracy, from the side of Government and of the governed.

Wheat Studies of the Food Research Institute.

SEPTEMBER, 1933. *Survey of the Wheat Situation, April to August,* 1933. A tremendous wave of speculative enthusiasm more than doubled the price of wheat futures at Chicago between April and July 17. A steep decline followed and by early September the gold-price of wheat had fallen almost to the level of early April. Favourable new crop prospects in Europe and the pressure of huge world stocks of old crop wheat—the highest on record—were dominant factors in restraining the advance and forcing the decline.

OCTOBER. *British Preference for Empire Wheat.* Experience during the first season warrants the conclusion that a preference of 2*s*. per quarter will by no means reserve the British market for Empire wheats. Canada and Australia have not been given an effective preference over Argentina and Russia, which would require a much higher rate of duty.

Révue d'Économie Politique.

MAY, 1933. *La France Économique; Annuare pour* 1932. (Finance, production, commerce, transport, and social questions; by various authors.)

JULY, 1933. *Les nouvelles théories économiques de la monnaie.* G. DEL VECCHIO. *Société d'économie mixte et système capitaliste.* FRANÇOIS-PERROUX. *Sur la reversibilité des équilibres économiques.* G. H. BOUSQUET.

Bulletin de l'Institut des Sciences Économiques.

AUGUST, 1933. *Les indices de la conjoncture économique du Congo belge depuis la guerre.* G. EYSKENS. *L'évolution économique de la Belgique en période de baisse fondamentale des prix* (1871–96). *Le marché belge des obligations de* 1897 *à* 1913. P. ROUSSEAUX. *Le taux de capitalisation des valeurs à revenu variable.* M. MASOIN. *La conjoncture économique de la Belgique et du Luxembourg.* L. H. DUPRIEZ.

Révue de l'Institut de Sociologie.

JULY, 1933. *L'art et le machinisme.* J. LAMEERE. *De la garantie des libertés publiques.* H. DE HOON. *La prévision dans la science.* W. M. KOZLOWSKI.

Schmollers Jahrbuch.

AUGUST, 1933. *Der Weg zum neuen Reich.* H. FEDDERSEN. *Schöpferische Entwicklung in Natur und Geschichte.* F. KERN. *Nationale Selbstgenugsamkeit.* J. M. KEYNES. *Die Grundprobleme der Nationalökonomie.* K. BODE. *Neueres Schrifttum zur Bevölkerungsfrage.* K. OLDENBERG. *Lage und Aussichten der deutschen Landwirtschaft.* P. QUANTE.

Weltwirtschaftliches Archiv.

OCTOBER, 1933. *Die Weltkonferenz in London,* 1933. J. COATMAN. Describes the features of world conditions which preceded the Conference, outlines its proceedings, and suggests that it has thrown light on the real bases of the economic nationalism of to-day. *Die Tendenz zur Nationalwirtschaft und die internationalen Beziehungen.* L. BROCARD. A return to free trade being at present out of the question, the author discusses an international arrangement and regulation of Protection. *Ökonomische Theorie, Nationalwirtschaft und Internationalismus.* H. KRETSCHMAR. An argument for a new conception of the function of the State, on the basis of a new direction of theory. *Die Weltwirtschaftskrisis des Jahres* 1857. H. WÄTJEN. The author is concerned mainly with conditions in America, and throws some light on their consequences in Europe. *Die zoll- und handelspolitischen Auswirkungen der Weltwirtschaftskrisis von* 1857–59. H. ROSENBERG. An argument on similar lines to the preceding, arising mainly out of the tariff policy of America and Canada. *Ägypten in der Weltwirtschaftskrisis.* C. BRESCIANI-TURRONI. The diminution in the international demand for Egyptian cotton has resulted in a worsening of the terms of trade for Egypt, owing to the inelasticity of the supply. Attempts are being made to make supply more elastic by substitution of other articles for cotton. *The Position of the Native Population in the Economic System of South Africa.* J. F. W. GROSSKOPF. *Die äussere Wirtschaftspolitik Australiens.* F. R. E. MAULDON. Examines the protectionist policy of Australia, as well as the non-fiscal methods of fostering export trade, as these unite with public borrowing for development, monetary policy, and immigration policy, to constitute external economic policy as a whole. *Russlands Getreideausfuhr.* B. BRUTZKUS. The socialisation of the land economy has made it possible to increase the assessments of grain and create a considerable export, but at the cost of want on the plains. The conditions of a sound export of grain do not at present exist in the U.S.S.R. *Wirtschaftsstruktur und Wirtschaftsbeziehungen Albaniens.* H. GROSS.

Zeitschrift für Nationalökonomie.

JUNE, 1933. *Gleichgewicht und Konjunktur.* J. R. HICKS. The aim of this essay is to examine the rôle of the concept of equilibrium in the theory of money and the trade cycle. The Lausanne equilibrium can be extended to take account of the time-factor and changes of data. But the use of money is inconsistent with perfect foresight, and monetary theory must be investigated in close conjunction with the theory of risk. Trade cycles arise from imperfect foresight and the use of money. *Zwei kritische Bemerkungen zur Preistheorie Gustav Cassels.* R. V. STACKELBERG. Cassel's attitude to the subjective theory of value is examined and it is shown that with variable technical coefficients the Principle of Substitution is not merely a supplementary principle. *Ricardo und die Entwicklung des Bullion-Report,* I. E. FOSSATI. Many of Ricardo's ideas in the *High Price of Bullion* are to be found in the works of Boyd, Thornton, Wheatley and King. *Die Kapitalzins theorie Böhm-Bawerks.* J. K. LINDBERG.

Böhm-Bawerk is criticised for neglecting the possibility of an extension of the period of production by the capitalists in order to increase profits and lower wages. Wicksell held that this could only occur with a combination of capitalists, but the author thinks his supposition unnecessary. *Theoretische und Statistische Kostkurve.* A. R. SWEEZY.

Zeitschrift für die gesamte Staatswissenschaft.

SEPTEMBER, 1933. *Rentenprincip und Grundrente.* A. VON NAVRATIL. *Zum Ausbau der Hochschulstatistik.* P. FLASKÄMPER. *Grundfragen und Erfahrungstatsachen der Devisenbewirtschaftung.* R. KERSCHAGL.

Vierteljahrshefte zur Konjunkturforschung.

SONDERHEFT 34. *Die Wettbewerbe der Steinkohle.* R. REGUL.

Jahrbücher für Nationalokonomie und Statistik.

AUGUST, 1933. *Mathematische Beziehung zwischen Gütermenge und Preis.* J. BAXA. *Die wirtschaftliche Ansichten von Joseph v. Radowitz.*

SEPTEMBER, 1933. *Das Aufkommen des landwirtschaftlichen Maschinen um die Wende des* 18 *und in der ersten Hälfte des* 19 *Jahrhunderts.* A. ELSTER.

OCTOBER, 1933. *Der Sinn des Aussenhandels und die Handelsstatistik.* J. JASTROW.

Kyoto University Economic Review.

JULY, 1933. *Progressive Taxation on the Incomes of Corporations.* M. KAMBE. *Forced Loans in the Meiji Restoration.* E. HONJO. *Survey of the Distribution of the People's Incomes in the light of the Household Rate.* S. SHIOMI. *Effects of the Operation of the Rice Law.* Y. YAGI. *On Output-curtailing in Modern Industry.* I. OTSUKA. *Marx's Analysis of Capitalism and the General Equilibrium Theory of the Lausanne School.* K. SHIBATA.

Giornale degli Economisti.

APRIL, 1932.[1] *Può una curva di domanda esser crescente?* PROFESSOR U. RICCI takes up again a problem which he had discussed in the *Giornale* of August, 1904. He concludes that he was then justified in contending that in certain circumstances the utility curve of a commodity might be inclined positively in its early stages, but he modifies his former reasoning with regard to the possibility of a rising demand curve. Discussing the theory of demand within the framework of the Walrasian system of general equilibrium, he holds that "the curve of increasing demand is simply a succession of points, each of which represents an unstable equilibrium," and that therefore the true, economically valid curve of demand must always slope downwards. *Bilancie dei pagamenti internazionali e riserve auree.* V. PORRI. *La soppressione delle riparazioni e la bilancia dei debiti e dei crediti della Germania.* A. BREGLIA. A convenient summary of the statistics of Germany's balance of trade for the years 1924 to 1931, with special reference to reparation payments and the import of

[1] These summaries of earlier issues, omitted at the time, are here inserted for purposes of record.

capital from foreign countries. Even after the suppression of the payment of reparations Germany will be compelled to export on a vast scale in order to make interest payments on her external debt, with consequences which will continue to embarrass other countries with large exporting industries. *Ancora sulla realtà dell' "homo oeconomicus."* A. CONTENTO.

MAY, 1932.[1] *Contributo alla determinazione del concetto di imposta generale sul reddito.* R. FUBINI. In the first of two articles dealing with the nature and effects of a general tax on income, the writer concludes that a general tax on income must fulfil three conditions: first, there must be a rational system of deductions from gross income to allow for amortisation of capital and insurance against risk; secondly, a general tax on income must always be proportional to the total net income—*i.e.* levied at a constant rate; thirdly, the tax must be "real" and not personal in character. *Le grandi scoperti: la teoria del protezionismo.* E. CORBINO. A very vigorous destructive criticism of a book recently published by Professor Manoilesco purporting to set out a new constructive theory of protection. *Diritto tributario e diritto finanziario.* A. CUTRERA.

JUNE, 1933. *Appunti economici sulla riduzione delle ore di lavoro.* L. LENTI. A discussion of the economic effects of a general reduction in the hours of work. *I contratti di compartecipazione in agricoltura.* M. TOFANI. *La dinamica della popolazione secondo Francesco Ferrara.* C. ARENA.

JULY, 1933. *Ricerche sulle fluttuazioni economiche di lunga durata.* J. G. KRETSCHMANN. A survey of price movements (based on wheat) during the seventeenth and eighteenth centuries in England and France shows that there is no evidence of any regular or cyclical fluctuations in prices in these centuries. The writer disputes the opposite conclusions of Jevons, Kondratieff, Kuznets and Beveridge. *La clausola della nazione più favorita in alcune vicende storiche dei trattati di commercio italiani.* G. BASSANI.

AUGUST, 1933. *L'offerta individuale di lavoro e le sue limitazioni.* G. DEMARIA. A treatment on mathematical lines of the conditions determining the individual worker's supply of labour, with special reference to a recent work by Professor Ragnar Frish entitled *The Measurement of Marginal Utility. In tema di curve di domanda.* B. FOÀ. It is contended, in answer to certain objections put forward by Dr. Dominedò in the *Giornale* for January 1933, that the Marshallian demand curve, no less than the supply curve, is logically related to a period of time rather than to an instantaneous moment of time. It is further argued that Marshall's assumption of the invariability of the marginal utility of money is not essential, and that there would be advantages in relating the individual's expenditure to his income.

La Riforma Sociale.

MAY–JUNE, 1932.[1] *Un fattore fondamentale delle fluttuazioni economiche.* PROFESSOR G. U. PAPI suggests that the trade cycle may be defined as "the development of a series of errors in the

[1] These summaries of earlier issues, omitted at the time, are here inserted for purposes of record.

supply of the product, at first taking the form of scarcity and subsequently of excess, set in motion by a favourable change in productive technique." Such errors give rise to important discrepancies between the costs and receipts of the business community and so produce fluctuations which would occur even in the absence of any element of monetary or credit instability. *Il costo della burocrazia dello Stato.* F. A. Répaci. *Piani.* Professor L. Einaudi seeks to damp the ardour of the protagonists of a "planned" economy, by pointing out some of the many difficulties and dangers likely to be encountered. *È possibile la riduzione autonoma della tariffa doganale?* G. Carano-Donvito. A criticism of the proposition that the reduction of the tariffs of a country should necessarily be conditional on and subordinate to a reduction in the tariff duties of other countries with which it has commercial relations.

July–August, 1933. *Sul moto ciclico.* A. Breglia. A discussion of the part played by loans at a fixed rate of interest, or repayable in a fixed sum of money, in increasing the violence of cyclical fluctuations. *Del "Brain Trust" e di altri guai della crisi.* Professor A. Cabiati castigates those responsible for the present economic and monetary policy of the United States on the ground of their ignorance of fundamental economic truths. *Nuovi vagabondaggi intorno alla crisi.* Professor L. Einaudi continues his interesting and instructive commentary upon the causes and characteristics of the world crisis. *Gli indici dei prezzi di borsa in Italia.* L. Lenti.

De Economist.

February, 1933. *Pachtwetgeving: Kort overzicht van eenige moderne wijzigingen in de Pachtwetgeving van verschillende Europeesche landen.* I. J. P. van Aartsen. A discussion of the landlord and tenant system in Europe. The tenant system is of greater importance in Holland than elsewhere; after Great Britain, Holland shows proportionately the largest number of tenants. In England and Scotland this is the result of inalienable possession of land by the nobility; in Holland, since the fifteenth century, rich merchants have turned to the possession of land. The advantages of the landlord-and-tenant system are discussed: in bad times such a system gives greater elasticity; it also gives an opening to competent cultivators who could not afford to buy their own land. On the whole, the landlord-and-tenant system is preferable to possession. In many respects it represents a very happy relationship between those in possession of capital who do not, and less fortunately placed people who do, command labour-power and skill. On broad lines the influence of Roman Law is discussed. The social importance to the nation of prosperous peasants and tenants is a factor in modifying the contract in a direction favourable to the tenant. Certain respects in which safeguards have been necessary are indicated, *e.g.* the question of renewing a lease, the problem of improvements, unforeseen circumstances ("acts of God"), and fixity of rent. The present instalment further contains a fairly detailed history of the land question in Ireland, Scotland and in England and Wales; it also deals with Finland and the Baltic States. *Beheersching der Conjunctuur.* I. I. Cransberg. Suggests that

Ricardo's denial of the possibility of a general glut is of more importance for the construction of a Conjunctur-theory than many modern contributions to the subject. The article is concerned with the "Law of the Cost of Production" and the Quantity Theory; also with the creation of money by the commercial banks, and the reaction of this on prices. The concluding section of this instalment discusses the long period rise and fall of prices in the nineteenth century. *Winstdeeling en Bedrijfsmedebezit.* M. C. M. DE GROOT. An answer to the seven points of criticism brought by Professor Bordewijk against profit-sharing schemes.

MARCH, 1933. *Om de toerekeningsleer.* E. C. VAN DORP. A general review of the two works of Dr. W. L. Valk: "The Theoretical-Economic System of Gustav Cassel" and "The Principles of Wages." *Pachtwetgeving, etc.* II. J. P. VAN AARTSEN. This further instalment discusses legislation with regard to land tenure under "Changes in the Code Civil" (France, Belgium, Spain, Italy), and also gives an account of the position in Germany. *Beheersching der Conjunctuur.* II. I. CRANSBERG. This instalment deals with the short-period waves (the cycle); and in particular with the crisis of 1929.

APRIL, 1933. *Coördinatie van het Verkeerswezen.* F. DE VRIES. There is a double crisis in the transport industry, due to (i) the general malaise of a fall in prices; and (ii) the rapid development of the means of transport. The question arises what policy should be adopted. It is not permissible to argue that it should be left to competition, since competition in the sense proposed does not in fact exist in transport, and, moreover, competition elsewhere has not settled such questions. Transport indeed has never been uncontrolled. The revolutionary nature of the changes in transport a century ago made it impossible for authority to stand aside. Railways were not put on the same footing as other industries, but were made serviceable to the furtherance of the general good. Examples of such control are given (*e.g.* freight charges); so also other burdens were placed on the Railways (*e.g.* conveyance of mails). At the same time, they were expected to meet their expenses out of their revenue. Everywhere, sooner or later, co-ordination has taken the place of competition. In the present century a new competition has sprung up with canals, motor transport and aircraft. Restrictions, however, remain imposed on railways only. There is need for consideration of a general policy. The principles which should serve as foundation for transport policy are (i) regard for the general interest; and (ii) costs should be covered by revenue. Costs of transport are part of the costs of production, and there is no reason why this particular item in the cost of production should be treated differently from any other. Other general questions of transport policy are discussed. The new competition is not competition on a basis of equality. The result of the present position is surplus of transport capacity, waste of capital, etc. Conditions of competition must be equalised, but there must be no attempt to protect the old against the new, nor consideration of vested interests. The principles outlined are applied to the case of motor-transport, canals, and to the problem of regulation of competition. *Pachtcvetgeving, etc.* III. J. P. VAN AARTSEN.

Continues the account of the legal position with regard to land tenure in Austria, Czecho-Slovakia, Switzerland and Sweden. The article concludes with recommendations for changes in the Law in Holland. The matters dealt with are: compensation for improvements, security of tenure and remission of rent in certain cases. *Beheersching der Conjunctuur.* III. I. CRANSBERG. In this concluding section the author discusses the question of control both for the long waves and for the cycle. Four conditions are enumerated: (i) in considering control it is necessary to distinguish long and short waves, as their characteristics and causes are different; (ii) proposals must embrace the whole capitalistic sphere of the economic life of the world; (iii) there should be no breach with gold as the international method of calculation; (iv) regulation should as far as possible fit in with existing laws relating to banking. Proposals are discussed under the two headings of the long and the short period.

MAY, 1933. *Over den vermogentoestand des lands en de noodzakelijkheid van universeel schuld-vermindering.* EMILE VERVIERS. This article contains the substance of an address directed to the Queen of Holland on 24th October, 1932, " writen in the apparently idle hope of convincing the responsible authorities of the serious economic condition of the land." It is primarily devoted to underlining the extent of the indebtedness of the country. It is estimated that the indebtedness is 136 per cent. of the national resources; the average wealth is 75 per cent. of what it was in 1913, and it is prophesied that the level of welfare will sink to a half of the 1913 level. The two factors in prolonging the depression are (i) indebtedness and (ii) wages. Four methods of dealing with the pressure of debts are discussed at considerable length. Three of these, for various reasons, are regarded as ineffective, impracticable or inadequate. They are: (i) raising the price level; (ii) depreciation of the currency; (iii) application of the Dutch law of bankruptcy. The fourth and only possible way is by special emergency legislation. The proposal put forward is that all debts in existence on 31st December, 1929, and all debts contracted in 1930 and 1931 should be automatically reduced by a certain percentage (4 per cent. is suggested) on the last day of each year for a limited number of years. The consequences of this proposal are discussed. The article is supported by an extensive series of explanatory notes. *Kapitaal en Arbeid in de Vereenigde Staten.* B. LANDHEER. A general review of the relations between Capital and Labour in the United States of America. Employers lay increasing emphasis on the care of the workers, partly in a desire to prevent the rise of Trade Unions. Various methods of interesting the workers in the firm are indicated. The State plays only a small part in industrial and social relations. Tendencies are illustrated by a more detailed discussion of the Western Electric Company, Hawthorne, Chicago.

Ekonomisk Tidskrift.

1933, No. 2. *On the Problem of the Exposition of Monetary Theory.* BERTIL OHLIN. The author attempts to construct a simple and more practical apparatus than that of neo-Wicksellian theory. It is necessary to clarify the ambiguities in current definitions of

income, saving, and investment before we can apply statistical data. The description given by Wicksell, Lindahl and Hayek of the cumulative process is based on the assumption of a spontaneous lowering of the rate of interest and of the stickiness of wages and the demand for consumption-goods; but a rise in prices need not necessarily involve an increase in the demand for and relative price of production-goods. The relevance of the Austrian theory of capital and of the time-structure of prices to monetary theory is stressed, for the exchange structure and time-sequence of prices is at the core of monetary problems. Finally, the neo-Wicksellian account of the equilibrium rate of interest and price-formation is stated to be static and inadequate.

No. 3. *The Swedish Riksbank's Consumption Price-Index.* ERIK LINDAHL. Since September 1931 the official Swedish policy has been to keep the kroner's internal purchasing power more or less stable. The article describes in detail the statistical material used by the Riksbank for compiling its price-level of consumption goods and services and of the deviations from stability permitted, and discusses the price developments of 1931–2 with particular reference to the influence of the depreciation of the kroner on Swedish retail prices.

NEW BOOKS

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Canadian Political Science Association. Papers and Proceedings of the Fifth Annual Meeting, Ottawa, Ontario, May 1933. Toronto University: Prof. V. W. Bladen. 10″. Pp. 259.

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